



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipts

| PO No | Supplier | Line Item No | Rel No | Terms | Purchased Item | Description | For Part No | Project | Equipment ID | Order Qty | Due Date | Received Quantity | Accounting Job No | Serial No | Status | Receive Date | Price/Unit | A C |
|----------|-----------|--------------|--------|--------|----------------|---|-------------|---------|--------------|-----------|------------|-------------------|-------------------|-----------|--------|--------------|--------------|-----|
| PO038598 | ACI001-VC | 1 | 1 | Net 30 | M6061T6R0.250 | 6061-T6 Round Bar 0.250" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | | | | 20 | 12/13/2017 | 20 | ✓ | S021843 | Stock | 12/14/2017 | \$ 0.16 / ft | |
| | | 2 | | | M6061T6R0.375 | 6061-T6 Round Bar .375" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | | | | | | 20 | ✓ | S021844 | Stock | 12/14/2017 | \$ 0.38 / ft | |
| | | 3 | | | M6061T6R1.500 | 6061-T6 Round Bar 1.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | | | | | | 20 | ✓ | S021845 | Stock | 12/14/2017 | \$ 5.52 / ft | |
| | | 4 | | | M6061T6R0.625 | 6061-T6 Round Bar .625" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | | | | 40 | | 40 | ✓ | S021846 | Stock | 12/14/2017 | \$ 1.00 / ft | |
| | | 5 | | | M6061T6R0.750 | 6061-T6 Round Bar .750" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | | | | | | 40 | ✓ | S021847 | Stock | 12/14/2017 | \$ 1.34 / ft | |
| | | 7 | | | M304R0.4375 | 304 Round Bar 0.4375 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft | | | | 12 | | 12 | ✓ | S021848 | Stock | 12/14/2017 | \$ 1.53 / ft | |
| | | 9 | | | M303R0.500 | 303 Round Bar 0.500" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft | | | | 36 | | 36 | ✓ | S021849 | Stock | 12/14/2017 | \$ 1.97 / ft | |
| | | 10 | | | M303R0.750 | 303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft | | | | | | 36 | ✓ | S021850 | Stock | 12/14/2017 | \$ 4.75 / ft | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

| PO No | Supplier | Line Item No | Rel No | Terms | Purchased Item | Description | For Part No | Project | Equipment ID | Order Qty | Due Date | Received Quantity | Accounting Job No | Serial No | Status | Receive Date | Price/Unit | A C |
|--------|----------|--------------|--------|-------|---|--|-------------|---------|--------------|-----------|------------|-------------------|-------------------|-----------|--------|--------------|---------------|-----|
| | | 12 | | | M4140H-R1.250 | 4140 Round Bar 1.250 : AISI 4140H ROUND BAR PER AISI 4140 OR ASTM A304-02/-A-434-BC/- A193-03-GRADE B7/-A29- 03/-A322-91 OR UNS#- G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI receive ft | | | | 6 | | 6 | | S021851 | Stock | 12/14/2017 | \$ 6.92 / ft | |
| | | 13 | | | M6061T6B0.625X01.500 | 6061-T6 Bar .625 X 1.50 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | | | | 20 | | 20 | | S021852 | Stock | 12/14/2017 | \$ 3.26 / ft | |
| | | 14 | | | M6061T6B1.000X04.000 | 6061-T6 Bar 1.00 X 4.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | | | | 12 | | 12 | | S021853 | Stock | 12/14/2017 | \$ 12.77 / ft | |
| | | 16 | | | M6061T6B1.000X02.000 <i>As per # ?</i> | 6061-T6 Bar 1.00 X 2.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | | | | 40 | | 36 | | S021854 | Stock | 12/14/2017 | \$ 7.46 / ft | |
| | | 18 | | | M304S16GA | 304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf | | | | 192 | | 192 | | S021855 | Stock | 12/14/2017 | \$ 6.51 / sf | |
| | | 19 | 2 | | M304S14GA | 304SS sheet .080 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf | | | | 64 | | 64 | | S021856 | Stock | 12/14/2017 | \$ 8.37 / sf | |
| | | 20 | 1 | | M304S22GA | 304/316 .032 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf | | | | 96 | 12/13/2017 | 32 | | S021857 | Stock | 12/14/2017 | \$ 3.62 / sf | |
| Total: | | | | | | | | | | 654 | | 586 | | | | | | |



ACIER OUELLETTE INC.
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Order - Sales

Copy CO00066318

Customer N° CL10001056

Date 2017/12/11

Delivery date 2017/12/12

Your order N° 38598

Processed by Josianne Bourdon

Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,
Att : CHANTAL LAVOIE Tél.: 613-632-5200
Delivery Route 5

Page 1

| Product Description | Weight | Qty | U/M | PCS NB | | | Internal Use Only | | | | | |
|--|--------|-------|----------|--------|-----|-----|-------------------|---|---|---|-----|--|
| | | | | CMD | EXP | B/O | IN | I | S | C | OUT | |
| | | | | | | | | | | | | |
| 1 ROUND ALU 1/4 6061-T6 RANDOM RAL-14-V 5135 1 X 20' HEAT : 67081 | 1.16 | 20.00 | PL_\$CLB | 1.00 | | | | | | | | |
| → 2 ROUND ALU 3/8 6061-T6 RANDOM RAL-38-V 5160 1 X 20' HEAT: C24551/1-4-1 | 2.64 | 20.00 | PL_\$CLB | 1.00 | | | | | | | | |
| 3 ROUND ALU 1 1/2 6061-T6 RANDOM RAL-112-V 5119 1 X 20' HEAT: 36375 | 41.52 | 20.00 | PL_\$CLB | 1.00 | | | | | | | | |
| 4 ROUND ALU 5/8 6061-T6 RANDOM RAL-58-V 5169 2 X 20' HEAT 66092 | 14.44 | 40.00 | PL_\$CLB | 2.00 | | | | | | | | |

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.
935, Boul. du Hâve
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Order - Sales

Copy

CO000066318

Customer No

CL10001056

Date

2017/12/11

Delivery date

2017/12/12

Your order No

38598

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att: CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Page

2

| Product Description | Weight | Qty | U/M | PCS NB | | | Internal Use Only | | | |
|---|--------|-------|----------|--------|-----|-----|-------------------|---|---|---|
| | | | | CMD | EXP | B/O | IN | I | S | C |
| 5 ROUND ALU 3/4 6061-T6 RANDOM RAL-34-V 5157 2 X 20' HEAT: 68706 <i>pd</i> | 20.92 | 40.00 | PL_\$CLB | 2.00 | | | | | | |
| 6 ROUND SS 7/16 304 RANDOM RSS-716-V 5779 1 X 12' R/L HEAT: 102445 <i>pd</i> | 6.13 | 12.00 | PL_\$CLB | 1.00 | | | | | | |
| 7 ROUND SS 1/2 303 RANDOM RSS-12303-V 5727 3 X 12' R/L HEAT: 233C <i>pd</i> | 24.01 | 36.00 | PL_\$CLB | 3.00 | | | | | | |
| 8 ROUND SS 3/4 303 RANDOM RSS-34303-V 5761 3 X 12' R/L HEAT: 490862 <i>pd</i> <i>4909862</i> <i>pd</i> | 54.07 | 36.00 | PL_\$CLB | 3.00 | | | | | | |
| DEC 14 2017 | | | | | | | | | | |

NIR : R-109516-6

Next Page...



ACIER OUELLETTE INC.
935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Order - Sales

Copy

CO00066318

Customer N°

CL10001056

Date

2017/12/11

Delivery date

2017/12/12

Your order N°

38598

Processed by

Josianne Bourdon

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,
Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Page

3

| Product Description | Weight | Qty | U/M | PCS NB | | | Internal Use Only | | | | | | |
|---|--------|-------------|----------|--------|-----|-----|-------------------|---|---|---|-----|--|--|
| | | | | CMD | EXP | B/O | IN | I | S | C | OUT | | |
| | | | | | | | | | | | | | |
| 9 ROUND 4140 HEAT TREAT 1 1/4 RANDOM R4140-114H-V 4897 1 X 6' HEAT: NF16202066 COUPE A LA SCIE SCIE 1 | 25.03 | 6.00 | PL_\$CLB | 1.00 | | | | | | | | | |
| 10 FLAT ALU 5/8 X 1 1/2 6061-T6 RANDOM FAL-58112-V 2631 1 X 20' HEAT: 201604056 FAL-14-V 2532 | 22.06 | 20.00 | PL_\$CLB | 1.00 | | | | | | | | | |
| 11 FLAT ALU 1 X 4 6061-T6 RANDOM FAL-14-V 2532 1 X 12' HEAT: 68708 q | 57.60 | 12.00 | PL_\$CLB | 1.00 | | | | | | | | | |
| 12 FLAT ALU 1 X 2 6061-T6 RANDOM q 2497 2 X 20' HEAT: 5207765802 | 96.00 | 40.00 36 | PL_\$CLB | 2.00 | | | | | | | | | |

NIR : R-109516-6

Next Page...

#51600

LES ACIERS OUELLETTE INC.
 BARRE RONDE LAITON C360 F.C. ASTM B16
 .375" DIA X 144.0000"
 PART NO.

PO/Rel AC00009208

We certify that this is a true copy of the report
 furnished by the producer of the metal, or data
 resulting from tests made in approved labs.

Certificate of Mill Test Results

Bl. PEC-064365-001

20 Sep 17

Signed by: 

Pg 1/1



Walcownia Metali
 "DZIEDZICE" S.A.
 43-502 Czechowice-Dziedzice
 ul. Kaniowska 3

ŚWIADECTWO ODBIORU 3.1
 INSPECTION CERTIFICATE 3.1
 EN10204

Nr Świadectwa / Certificate No.

C24551/1-4-1

Adres wysyłkowy: THYSSENKRUPP MATERIALS NA
 Delivery address: TORONTO 2821 LANGSTAFF ROAD
 CONCORD, L4K 5C6 ONTARIO KANADA

Zamawiający: THYSSENKRUPP MATERIALS NA
 Purchaser: 2821 LANGSTAFF ROAD CONCORD, L4K 5C6
 ONTARIO KANADA

Nr zlecenia wydobywania:
 Order No: C24551

Nr zamówienia klienta: PEC-282949
 Purchase Order No:

Nr kontraktu:
 Our contract No:

Pozostałe oznaczenia:
 Other indications:

Wyszczególnienie zamówienia / Order Specification

Przedmiot odbioru: Pręty Ciągłokształtne / Object of inspection: Rods of Continuous Shape

Dodatkowe wymagania: Additional requirements:

Oznaczenie: B. Reqs C36000 H02 RND 0.375" x 144"

Designation:

| Gratunek / Alloy: | C36000 | Parameter / Parameter | Wymiar / Dimension [mm] | Tolerancja / Tolerance |
|---|-------------------|---------------------------------------|-------------------------|------------------------|
| Norma chemiczna / Chemical standard: | ASTM B16-10 | Srednica zew./Outer OD (width) [inch] | 9.525 | |
| Stan dostawy / Temper: | H02 - wg ASTM B16 | Srednica wew./Inner ID [inch] | | |
| Norma wytrzymałościowa / Mechanical standard: | ASTM B 249-10 | Grubość / Thickness [inch] | | |
| Norma wymiarowa / Tolerance standard: | ASTM B 249-10 | Długość OD / Dimensions-long [inch] | 3660 | |
| Kształt: | | Długość ID / Dimensions-long [inch] | | |

Skład chemiczny / Chemical composition [%]

| Nr partii / Lot No | Cu | Pb | Fe | Zn | Przysade / Others total |
|--------------------|-------|-----|------|---------------|-------------------------|
| C24551/1-4-1 | 60.47 | 2.8 | 0.14 | resztą / rest | 0.126 |

Właściwości mechaniczne / Mechanical properties

| | Rm [ksi] | Rp0.5 [ksi] | A [%] |
|-------------|----------|-------------|-------|
| Min | 62.50 | 49.01 | 16 |
| Max | 63.51 | 50.17 | 16 |
| Liczba prób | 4 | 4 | 4 |

Pakowanie / Packing

| Skutki, Waga / Pieces [szt./pcs.] | Skrynie / Cases [szt./pcs.] | Waga netto / Net Weight [lb] | Oznaczenie / Marking |
|-----------------------------------|-----------------------------|------------------------------|----------------------|
| | 7 | 6873.93 | h |

Uwagi / Comments

Próbki mechaniczne i wymiary zbadano i stwierdzono zgodność z zamówieniem.
 Surface and the dimensions had been tested and were found in comply with the order.

Materiał typowy i produkowany w Polsce.
 Material tested and manufactured in Poland.

Na podstawie przeprowadzonych badań wytrzymałościowych i prób technologicznych uznano, że wykonany materiał jest zgodny z warunkami zamówienia oraz z Dyrektywą RoHS II nr 2011/65/EC.
 Based on the strength and technological tests it was concluded that the material had been made in accordance with the terms of the contract and RoHS II Directive no. 2011/65/EC.

Zaświadczenie / Certificate of Approval
 Laboratory Team Lead
 Michał Wala

Dokument generowany komputerowo / Computer-generated document

Czechowice-Dziedzice 2017-05-26

<http://www.walcedzice.com.pl>

Strona/Page 1/1

KAL 38

2497

49203



GERDAU

CANAL-CANBRIDGE
160 ORION PLACE
CANBRIDGE, ONTARIO
Canada

CUSTOMER NAME TO
LESACHERS TRANSMET 1007 LITE
22 J. KENNEDY BLVD
SAINT-HEROME, QC J7Y 4B4
Canada

CUSTOMER BILL TO
LESACHERS TRANSMET 1007 LITE
4054 BOUL. LE CORBUSIER
L'AVAN, QC J7L 5R2
Canada

SALES ORDER
4837538/00210

CUSTOMER MATERIAL N°

GRADE
G40-30

LENGTH
2030"

WEIGHT
4.896 LB

STAMP
1 N 2

DOCUMENT
6280256739

5207765892

CUSTOMER PURCHASE ORDER NUMBER
OU4742H5N032P

BILL OF LADING
1301-0000029197

DATE
04/17/2017

SPECIFICATION / DATE OF REVISION
ASTM A529-14, A572-15
ASTM A529-14, A572-15
ASTM A709-15, AASHTO M270-12
CSA G40 20-13 G40 21-13

| CHEMICAL COMPOSITION | | | | | | | | | |
|----------------------|------|-------|-------|------|----|------|------|-------|-------|
| C | Mn | P | S | Si | Al | N | Cr | Mo | V |
| 0.14 | 0.92 | 0.014 | 0.017 | 0.17 | | 0.12 | 0.16 | 0.029 | 0.034 |
| | | | | | | | | | |
| | | | | | | | | | |

| MECHANICAL PROPERTIES | | | | | | | | | |
|-----------------------|-------|-------|-----|-------|-------|-----|-----|-----|-----|
| Elong. | UTS | UTS | UTS | UTS | UTS | UTS | UTS | UTS | UTS |
| 22.00 | 8,000 | 76476 | 527 | 58834 | 58824 | 406 | 406 | 406 | 406 |
| 20.00 | 8,000 | 76441 | 527 | 58824 | 58824 | 406 | 406 | 406 | 406 |

COMMENTS: NOTES
This grade meets the requirements for the following grades:
ASTM Grades: A36, A572-50, A572-50, A709-50, A709-50
CSA Grades: 44W, 50W
AASHTO Grades: M270-50, M270-50
ASME Grades: SA36

The above figures are certified chemical and physical test records as contained in the permanent records of company. We certify that these data are correct and in compliance with specified requirements. This material, including the billets, was melted and manufactured in Canada. CNTR complies with EN 10204 3.1.

MacKey
QUALITY DIRECTOR

Edward Wilson
QUALITY ASSURANCE

Phone: (416) 760-1014 Email: MacKey@gerdau.com

Phone: (416) 668-8811 Email: Edward.Wilson@gerdau.com

#5135

TRA-1498

Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : LES ACIERS TRANSBEC (1997) LTEE.

Adresse / Address : 4054 BOUL. LE CORBUSIER, #201
LAVAL, QC
H7L5R2

commande Sapa / Sapa order # : 6090684

bon de commande / Purchase order # : OU-46528

de matrice / Die # : MS 13128

Description : 1/4" O.D. ROD

Alliage & trempage / Alloy & temper : 6061 T6 Longueur / Length : 6097 mm

Contrôle / Control # : 76511-3

Coulée / Cast # : 67081

Dureté Rockwell E /
Rockwell E hardness : 88 HRE

Min. requis /
Min. required : 88 HRE

Max. permis /
Max. permitted : 100 HRE

Composition chimique typique / Typical chemical composition :

| | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti |
|-------|-------------|-------------|-------------|-------------|-------------|-------------|----------|----------|
| 6063 | 0.20 - 0.60 | 0.35 Max | 0.10 Max | 0.10 Max | 0.45 - 0.90 | 0.10 Max | 0.10 Max | 0.10 Max |
| 6005 | 0.60 - 0.90 | 0.35 Max | 0.10 Max | 0.10 Max | 0.40 - 0.60 | 0.10 Max | 0.10 Max | 0.10 Max |
| 6005A | 0.66 - 0.74 | 0.14 - 0.28 | 0.08 - 0.16 | 0.18 - 0.26 | 0.46 - 0.54 | 0.03 Max | 0.05 Max | 0.05 Max |
| 6061 | 0.40 - 0.80 | 0.70 Max | 0.15 - 0.40 | 0.15 Max | 0.80 - 1.20 | 0.04 - 0.35 | 0.25 Max | 0.15 Max |
| 6351 | 0.7 - 1.3 | 0.5 Max | 0.10 Max | 0.40 - 0.80 | 0.40 - 0.80 | --- | 0.20 Max | 0.20 Max |

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,
Yours truly,

date : 2016-10-06



Gilles Pelletier
Technicien de la qualité
Quality technician

RAAL 14

RAL-112-V #5119

4907L Tra-1884

BON DE LIVRAISON

VENDEUR A
ACIERS TRANSBEC (1997) LTEE
4054, BOUL LE CORBUSIER
#201
LAVAL, QC
H7L 5R2
NO CLIENT: 3693

NO CLIENT: L-3693

| NO DU BDN | DATE DE LIVRAISON |
|---------------------------------|--|
| 120289 | 12/May/17 |
| NR R-015478-2 | NO DE TELEPHONE CLIENT 450-883-3693 |
| NO COMMANDE CLIENT PAJ-47729 | REPRESENTANT Guillaume Morin |
| CHAUFFEUR JIMMY AYOTTE | NO COMMANDE EXTRUDEV 104648 |

| NO ITEM | NO DE FILIERE | NO PIECE CLIENT | DESCRIPTION ALLIAGE/TREMPAGE | LONGUEUR | FINITION | COMMANDE CLIENT NB PIECES KILOS | A VENIR NB PIECES KILOS | NO TICKET NB PIECES | EN LIVRAISON NB PIECES KILOS | % | Q |
|-------------|---------------|-----------------|---------------------------------|----------|-----------------|------------------------------------|----------------------------|------------------------|---------------------------------|---|---|
| 14 | SA00566 | | TIGE RONDE 1 1/2 8061/TTG | 6096mm | NATUREL MILL | 27 500 | 0 0 104648-14-1A1 | 400519 | 29 547 | | |
| Sous-Total: | | | | | | | | 1 | 29 547 | | |

3 MILLTEST + CERT. CONFORMITE**Mill Test (Tensile Properties of Aluminum)**

Test Date: 4/May/17

| Order No. | Alloy | Temper | Yield (ksi) | Ultimate Tensile (ksi) | Total Elongation (%) | Hardness (Rockwell E) | Conductivity % | Report No. |
|---------------|-------|--------|-------------|------------------------|----------------------|-----------------------|----------------|------------|
| 104648-14-1A1 | 8061 | 16 | 43.0 | 45.9 | 16.75 | 94.90 | | 6990 |

Certificate of compliance (Certificat de conformité)

Normes: (ANSI H35.1-1997) & (AS FM B221)

| Order No. | Hardness (Webster) #1 #2 | Cast No. | CAST CHEMICAL COMPOSITION: | | | | | | | | | | | | | | | | |
|---------------|-----------------------------|----------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 104648-14-1A1 | 15 | J6375 | Al | Si | Fe | Cu | Mn | Mg | Cr | Ni | Zn | Ti | Ga | V | B | Zr | Hi | Pb | Sn |
| | | | 99.09 | 0.55 | 0.10 | 0.10 | 0.07 | 0.83 | 0.05 | 0.00 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

RAL 112

12 MAI 2017

SIGNATURE
EXTRUDEV:SIGNATURE
CLIENT:

DATE: 05/12/12 12

45454

68623

RAL 58

Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : **LES ACIERS TRANSBEC (1997) LTEE.**

Adresse / Address : **4054 BOUL. LE CORBUSIER, #201
LAVAL, QC
H7L5R2**

commande Sapa / Sapa order # : **6031289**

bon de commande / Purchase order # : **OU-45668**

de matrice / Die # : **MS 9907**

Description : **5/8" DIA ROD**

Alliage & trempage / Alloy & temper : **6061 T6** Longueur / Length : **6097 mm**

de contrôle / Control # : **65547-1**

de coulée / Cast # :

66092

Dureté Rockwell E /
Rockwell E hardness : **93 HRE**

Min. requis /
Min. required : **88 HRE**

Max. permis /
Max. permitted : **100 HRE**

Composition chimique typique / Typical chemical composition :

| | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|----------|
| 6063 | 0.20 - 0.60 | 0.35 Max | 0.10 Max | 0.10 Max | 0.45 - 0.90 | 0.10 Max | 0.10 Max | 0.10 Max |
| 6005 | 0.60 - 0.90 | 0.35 Max | 0.10 Max | 0.10 Max | 0.40 - 0.60 | 0.10 Max | 0.10 Max | 0.10 Max |
| 6005A | 0.66 - 0.74 | 0.14 - 0.28 | 0.08 - 0.16 | 0.18 - 0.26 | 0.46 - 0.54 | 0.03 Max | 0.05 Max | 0.05 Max |
| 6061 | 0.40 - 0.80 | 0.70 Max | 0.15 - 0.40 | 0.15 Max | 0.80 - 1.20 | 0.04 - 0.35 | 0.25 Max | 0.15 Max |
| 6351 | 0.7 - 1.3 | 0.5 Max | 0.10 Max | 0.40 - 0.80 | 0.40 - 0.80 | --- | 0.20 Max | 0.20 Max |

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,
Yours truly,

date : **2016-05-12**



Gilles Pelletier
Technicien de la qualité
Quality technician

#5157

Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : LES ACIERS TRANSBEC (1997) LTEE.

Adresse / Address : 4054 BOUL. LE CORBUSIER, #201
LAVAL, QC
H7L5R2

commande Sapa / Sapa order # : 7020941

bon de commande / Purchase order # : OU-47416

de matrice / Die # : MS 9909

Description : 3/4" ROD

Alliage & trempage / Alloy & temper : 6061 T6 Longueur / Length : 6097 mm

Contrôle / Control # : 85611-1

Coulée / Cast # : 68706

Dureté Rockwell E / Min. requis / Max. permis /
Rockwell E hardness : 91 HRE Min. required : 88 HRE Max. permitted : 100 HRE

Composition chimique typique / Typical chemical composition :

| | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti |
|-------|-------------|-------------|-------------|-------------|-------------|-------------|----------|----------|
| 6063 | 0,20 - 0,60 | 0,35 Max | 0,10 Max | 0,10 Max | 0,45 - 0,90 | 0,10 Max | 0,10 Max | 0,10 Max |
| 6005 | 0,60 - 0,90 | 0,35 Max | 0,10 Max | 0,10 Max | 0,40 - 0,60 | 0,10 Max | 0,10 Max | 0,10 Max |
| 6005A | 0,66 - 0,74 | 0,14 - 0,28 | 0,08 - 0,16 | 0,18 - 0,26 | 0,46 - 0,54 | 0,03 Max | 0,05 Max | 0,05 Max |
| 6061 | 0,40 - 0,80 | 0,70 Max | 0,15 - 0,40 | 0,15 Max | 0,80 - 1,20 | 0,04 - 0,35 | 0,25 Max | 0,15 Max |
| 6351 | 0,7 - 1,3 | 0,5 Max | 0,10 Max | 0,40 - 0,80 | 0,40 - 0,80 | --- | 0,20 Max | 0,20 Max |

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,
Yours truly,

date : 2017-03-28

Daniel Alfredo Pelletier
Directeur Qualité
Quality Director

DP
R

#5779

Fidelity C 17182

VIRAJ PROFILES LIMITED

Works: SURVEY NO.- 25/1, 25/2, 26 & 34, Village- MAAN, Taluka- PALGHAR, Dist.- THANE, MAHARASHTRA -401 506, INDIA,
e-mail- vielqc@viraj.com

MILL'S CERTIFICATE

| | | | |
|-----------------|------------------------|----------------------|----------------|
| ORDER NO | PACKING LIST NO | INSPECTION NO | DATE |
| P004885 | 64/1008331/5 | 100006886214 | 07.07.2016 |
| | | GRADE | HEAT No |
| | | 304/304L | 102445 |

BUNDLE NO :
1100534981, 1100534980,

DESCRIPTION

STAINLESS STEEL BRIGHT BARS

COLD DRAWN POLISHED - 2H

| SIZE | SHAPE | TOLERANCE | LENGTH | PIECES | WEIGHT |
|-------|-------|-----------|-----------|--------|--------------|
| 7/16" | ROUND | ASTM A484 | 12' - 14' | 328 | 2,020.000 LB |

CHEMICAL ANALYSIS

| %C | %Mn | %Si | %S | %P | %Cr | %Ni | %Cu | %Mo | %Co | %N2 |
|--------|-------|-------|--------|--------|--------|-------|-------|-------|-------|---------|
| 0.0270 | 1.380 | 0.420 | 0.0220 | 0.0340 | 18.400 | 8.060 | 0.700 | 0.340 | 0.150 | 0.08500 |

TEST RESULTS

| 0.2% yield strength ksi | Tensile Strength ksi | Elongation % | Reduction Of Area % | Hardness BHN | Grain Size NOS |
|----------------------------|-------------------------|-----------------|------------------------|-----------------|-------------------|
| 94.0 | 108.0 | 42.0 | 70.0 | 220.0 | 7.0 |

SPECIFICATION:

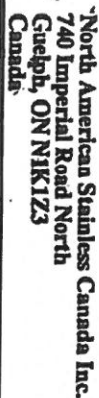
MATERIAL CONFIRMS TO DIN EN 10088-3:2005:WNR 1.4301/1.4307, EN 10222-5 AND EN 10272 COND-A & ASTM A182/A-182M-15, ASTM A276/A276M-16 COND A, A479/A479M-15 COND A, A193/A193M-12b B8 CL-1, A320/A320M-11a B8 CL-1, A484 16, A388/A388M-05, ASME SA182-14, SA479-11, SA 193-11 B8 CL-1, SA320-11 B8 CL-1, ASTM A314-2008. IGC SATISFACTORY AS PER ASTM A 262-10 PRACTICE E. AMS 5639H /AMS5647J (EXCEPT MARKING), QQ-S-763F, NACE MR0103-2012, NACE-MR0175/ISO-15156-2015. SAE-AMS-S-7720A, MIL-S-862-B. AISI 304/304L & UNS#S30400/S30403. CERTIFICATION AS PER EN 10204-3.1.

REMARKS

MATERIAL IS FREE FROM MERCURY CONTAMINATION, FREE FROM WELD OR WELD REPAIRS, MICRO:FREE FROM CONTINUOUS CARBIDE NETWORK ON GRAIN BOUNDARIES. MACRO:GOOD, MINIMUM SOLUTION ANNEALING TEMPERATURE 1050C, SOAKING TIME 1/2 HRS, WATER QUENCHED. MELT SOURCE:AOD. WE CONFIRM THAT THE MATERIAL HAS BEEN TESTED AND FOUND TO BE FREE FROM RADIOACTIVE CONTAMINATION.COUNTRY OF ORIGIN: INDIA.

We hereby certify that the material described above has been tested and complies with the terms of order/contract.

WORKS INSPECTOR
K R K MURTHY



METALLURGICAL TEST REPORT

**6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000**

Certified to: 284329 2

Customer: 007080 003

Your Order: MW5668

HAS order: IN 0246269 04

Corrosion:

Finlayson, CD

Date: 4/18/2017 Page: 1
Steel: 303

PRODUCT DESCRIPTION:

UNR 30300, ASTN 1582/12 ED 1020 3.1, ASTN 1468/15
AMS 5640V TYPE 1, 648-7648 CONDITION A
BOLTON AERIAL TEMP 19007 KIN

РЕЗЮМЕ

COMPLIES W/REQUIREMENTS OF DPMR 253.225-7009 EU DIRECTIVE 2011/65/EU, ROHS, EAF+MOD+CC, NO WELD REPAIR, MELTED AND NOT IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CERTIFICATIONS

| Product Id | Shield # | Diameter | Size | Weight | -----Length----- | Mark | Pieces | Commodity Code |
|------------|----------|----------|------|--------|------------------|------|--------|----------------|
| BI4356 4 | | .5000 | | 610 | 144.00 | 5 | 1 | |

CHEMICAL ANALYSIS

CM(Country of Mch)

E8(8p_{min})

J8(United S

24(8)

with Africa)

(Japan)

Chen

Real Analysis

... por ...

TM A751.

44

MECHANICAL PROPERTIES

| Product ID | 1 d o i o r | HB No. | .2YS KBT | UTS KBT | RA % | Elmg % 2" |
|------------|-------------------|-----------|-------------|------------|---------|--------------|
| BI4256 4 | N L | 240.0 | 79.94 | 101.32 | 30.39 | 29.50 |

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

**Technical
Dept. Mgr.**

KRIS LARK

4/18/2017

5760

RSS-34303-12

107131

Larrosa (EU) (V) (AVA) España
P.O. Box 1325 48080 Bilbao
Tel: 944911711 (1 line)
Fax: 944911551 (1 line)

Management Systems
Certified by
I RQA
ISO 9001 / SGI 600360
ISO 14001 / SGI 187678

ACEROS INOXIDABLES

OLARRA

48389

Trade Mark - Zeichen des Unternehmens
Arbeitsmarken - Marken der Firma
Works Inspection Stamp - Werksinspektionsstempel
Sello del Inspector

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|------------------------------------|--|---|--|----------------------------|--|---|--|-------------------------|--|---------------------------|--|---|--|---|--|--------|--|-------------|--|--|--|--|--|--|--|
| Certificate type - APZ Nach Certificado tipo | | EN 10204/3.1 | | Certificate n° - Prof. Nr. Certificado n° | | 271387 | | Date - Datum - Fecha 02 - 05 - 2016 | | | | | | | | | | | | | | | | | | | |
| Our order N° Works - Nr N° de Referencia | | 599799 | | Heat Schmelz Colada | | 409862 | | Your order N° Bestell. Nr Pedido N° | | C101814 | | | | | | | | | | | | | | | | | |
| Steel Grade Werkstoff Calidad | | AISI-303 | | According to Entsprechend Correspondiente | | ASTM A 582 / A 582M-12 | | | | | | | | | | | | | | | | | | | | | |
| Shape and Size - Gegenstand Perfil y dimension ROUND 3/4" | | Tolerance - Toleranz Tolerancia | | ASTM A 484 / TB.7 | | Bundles Bunde Bultos | | 2 | | Bars Stäbe Barras | | Weight Gewicht Peso | | 2549 Lbs | | | | | | | | | | | | | |
| Requirements - Anforderungen - Exigencias QQ-S 764B-70. AMD2 COND.A. SAE AMS 5640U-07. TYPE I. EN 10.088-3.2014. 1.4305. MECAMAX - PLUS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Melting process / Erschmelzungsart / Proceso de Fusión E.A.F. / A.O.D. | | | | Heat treatment / Wärmebehandlung / Tratamiento térmico 1050C 4H/Sid WATER/WASSER/AGUA Solution annealed/Abgeschreckt/Hipertempe-Cold drawn/Gezogen/Estirado-Polished/Poliert/Polido | | | | | | | | | | | | | | | | | | | | | | | |
| Test results - Ergebnis der Prüfungen - Resultados de los ensayos | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimension of Specimen Abmessungen des Probestabes Medida de las probetas | | Rp0.2% KSI | | Rp 1% KSI | | Rm KSI | | A % 1.5D | | A % 4D | | Z % | | Hardness Harte HBw | | Impact test / Kerbschlag / Resiliencia ISO V 10 J | | | | | | | | | | | |
| RD. 12.50 mm. | | 74 | | 87 | | 103 | | 37 | | 55 | | 229 | | 262 | | | | | | | | | | | | | |
| Temperature °C 20 | | Spec. N° Probe Nr Pro N° | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| C | | Si | | Mn | | P | | S | | Cr | | Mo | | Ni | | Cu | | N | | Co | | | | | | | |
| Min | | | | | | | | 0.150 | | 17.00 | | | | 8.00 | | | | | | | | | | | | | |
| Max | | 0.150 | | 1.00 | | 2.00 | | 0.200 | | 19.00 | | | | 10.00 | | 0.70 | | 0.1000 | | | | | | | | | |
| | | 0.046 | | 0.39 | | 1.83 | | 0.035 | | 0.309 | | 17.65 | | 0.34 | | 8.45 | | 0.53 | | 0.0365 0.15 | | | | | | | |
| Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional | | | | O.K. | | | | Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad | | | | O.K. | | | | Ant mixing test Spektroskopverwachsungstest Antmezcla | | | | O.K. | | | | Grain Size Korngröße Tamaño de grano | | | |
| Remarks - Bemerkungen - Observaciones Free From Mercury contamination/Cuecksilberfreiheit. No weld repair. | | | | | | | | | | | | | | EDV / EDP Acc. EN 10.204 Mantenimiento Quality Mng Weld Inspection Der We. Assistent und der Inspektor der Fabrik | | | | | | | | | | | | | |

188264

#4897

R-1140-114H-V

TPA 2012

CERTIFICATE OF TEST
CERTIFICAT D'ESSAIS

Page 01 of 02

Certification Date
1-SEP-2017CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENTInvoice Number
S697041AC00008879
PART NUMBER/NUMÉRO DE PIÈCESOLD TO: ACIER OUELLETTE INC
VENDU À:SHIP TO:
EXPÉDIÉ À:

ACIER OUELLETTE INC.

22 BOULEVARD J-F KENNEDY
ST JEROME QC J7Y 4B622 BOULEVARD J F KENNEDY
SAINT JEROME QC J7Y 4Description: 4140/42 HEAT TREATED GROUND AND POLISHED BAR
1-1/4 RD X 24" R/L Line Total: 102 LB
HEAT: NF16202066 ITEM: 506068

Specifications:

- ASTM A193 GR B7 15
- ASTM A108 13ASTM A434 CL BC 12
ASTM A29 15

ASME SA193 GR B7 15

CHEMICAL ANALYSIS

| | | | | | | | |
|-------|-------|-------|--------|------|------|------|------|
| AL | C | CB | CR | CU | MN | MO | NI |
| 0.025 | 0.41 | 0.003 | 0.96 | 0.14 | 0.90 | 0.17 | 0.10 |
| P | S | SI | SN | | | | |
| 0.011 | 0.019 | 0.25 | 0.0090 | | | | |

RCPT: R136834

COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

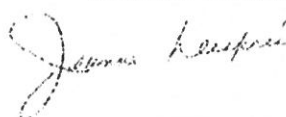
| DESCRIPTION | YLD STR KSI | ULT TEN KSI | %ELONG IN 02 IN | %RED IN AREA | HARDNESS BHN |
|-------------|----------------|----------------|--------------------|-----------------|-----------------|
| | 122.5 | 140.0 | 18.5 | 55.5 | 305 |

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 02

Certification Date
1-SEP-2017

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number
S697041

AC00008879
PART NUMBER/NUMÉRO DE PIÈCE

| | | | |
|-----------------|--|-------------------|---|
| SOLD TO: | ACIER OUELLETTE INC | SHIP TO: | ACIER OUELLETTE INC. |
| VENDU À: | 22 BOULEVARD J-F KENNEDY ST JEROME QC J7Y 4B6 | EXPÉDIÉ À: | 22 BOULEVARD J F KENNEDY SAINT JEROME QC J7Y 4 |

Description: 4140/42 HEAT TREATED GROUND AND POLISHED BAR
1-1/4 RD X 24' R/L Line Total: 102 LB

| | | | | | | | | | | | | | | |
|--|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| HEAT: NF16202066 | ITEM: 506068 | | | | | | | | | | | | | |
| END-QUENCH HARDENABILITY (JOMINY - RC) | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |
| 57 | 57 | 57 | 57 | 57 | 57 | 56 | 54 | 53 | 51 | 48 | 47 | 44 | 44 | 43 |
| 24 | 28 | 32 | | | | | | | | | | | | |
| 41 | 39 | 36 | | | | | | | | | | | | |

IDEAL DIAMETER : 5.2 IN GRAIN SIZE :8 -

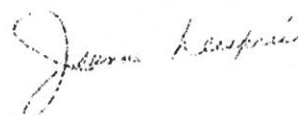
MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL
THERMAL TREATMENT: OK
AUSTENTIZE TEMP. 1600 F TIME (HR) 1 QUENCH MEDIUM OIL
TEMPER TEMP 1150 DEG F TIME (HR) 1
STRESS REL. TEMP. 1050 DEG F TIME (HR) 1.00
MACRO: OK

COMMENTS
surface finish 32 ra
red. ratio 32.4:1
melted & mfg in usa
mill: nucor steel division

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.
The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

#2507, 2552, FAL-14-12, TRA 941, 47714

Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : LES ACIERS TRANSBEC (1997) LTEE.

Adresse / Address : 4054 BOUL. LE CORBUSIER # 201
LAVAL, QC
H7L5R2

commande Sapa / Sapa order # : 7021578

bon de commande / Purchase order # : OU-47427

de matrice / Die # : MS 16386

Description : 4.00" X 1.00" FLAT BAR

Alliage & trempage / Alloy & temper : 6061 T6

Longueur / Length : 3657 mm

Contrôle / Control # : 86430-1

Coulée / Cast # : 68708

Dureté Rockwell E /
Rockwell E hardness : 93 HRE

Min. requis /
Min. required : 88 HRE

Max. permis /
Max. permitted : 100 HRE

Composition chimique typique / Typical chemical composition :

| | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti |
|-------|-------------|-------------|-------------|-------------|-------------|-------------|----------|----------|
| 6063 | 0.20 - 0.60 | 0.35 Max | 0.10 Max | 0.10 Max | 0.45 - 0.90 | 0.10 Max | 0.10 Max | 0.10 Max |
| 6005 | 0.60 - 0.90 | 0.35 Max | 0.10 Max | 0.10 Max | 0.40 - 0.60 | 0.10 Max | 0.10 Max | 0.10 Max |
| 6005A | 0.66 - 0.74 | 0.14 - 0.28 | 0.08 - 0.16 | 0.18 - 0.26 | 0.46 - 0.54 | 0.03 Max | 0.05 Max | 0.05 Max |
| 6061 | 0.40 - 0.80 | 0.70 Max | 0.15 - 0.40 | 0.15 Max | 0.80 - 1.20 | 0.04 - 0.35 | 0.25 Max | 0.15 Max |
| 6351 | 0.7 - 1.3 | 0.5 Max | 0.10 Max | 0.40 - 0.80 | 0.40 - 0.80 | — | 0.20 Max | 0.20 Max |



Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,
Yours truly,

date : 2017-03-31

Daniel Alfredo Pelletier
Directeur Qualité
Quality Director

| Manufacturer / Fabricante / Herstellerwerk outokumpu  | | Type of document / Tipo de documento / Art der Prüfbescheinigung INSPECTION CERTIFICATE CERTIFICADO DE INSPECCION ABNAHMEPRÜFZEUGNIS according to / de acuerdo con / nach EN 10204-3.1 | | Document number / Nº de certificado / Bescheinigungs-Nr. 0000253804 / Page / Página / Seite 1 / 1 | | | | | | | | | | | | | | | | | | | | | |
|--|------|--|-------|---|-------|------|------|-------|------|-----|------|------|------|-----|------|-------|------|------|-------|--------|-------|------|------|-------|------|
| 1 Steel Drive; P.O. Box 13000; Celvert, AL 36513-1300 | | Customer's order number / Nº de Pedido Cliente / Kundenbestell-Nr. C17332 Manufacturer's works order no. / Nº de Pedido Manufactura / Werksauftrag-Nr. 901213420 / 002 Delivery note no. / Nº de Entrega / Lieferungs-Nr. BS464320 / 010 Product / Producto / Erzeugnis SHEET/HOJAS/BLECH Steel grade and quality / Acero / Stahlstufen und Gütegruppe TYPE 304L/304 | | | | | | | | | | | | | | | | | | | | | | | |
| Terms of delivery / Condiciones de entrega / Lieferbedingungen ASTM A240/A240M-16a, ASME SA-240 Sec. II part A Ed.2015 ASTM A480/A480M-16b, ASME SA-480 Sec. II part A Ed.2015 ASTM A666-15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Customer's material no. / Nº de material del cliente / Kundenmaterial-Nr. | | Product dimensions (Thickness / Width / Length) / Dimensiones (Espesor / Ancho / Largo) / Maße des Erzeugnisses (Dicke / Breite / Länge) 1.52 mm x 1,219.20 mm x 2,438.40 mm 0.0600 Inch x 48.0000 Inch x 96.0000 Inch | | Steelmaking procedure / Proceso de manufactura / Herstellart AOD Finish / Acabado / Ausführung 11c / 2B | | | | | | | | | | | | | | | | | | | | | |
| Packing-No. / Nº de Empaque / Paket-Nr. 7081588 | | No of pieces / Piezas / Stückzahl 34 | | Actual weight / Peso actual / Ist-Gewicht 2,601 lb / 1,180 kg | | | | | | | | | | | | | | | | | | | | | |
| Coil No. / Bobina No. / Band-Nr. 790960 | | Heat No. / Calada / Schmelze 514212 | | Sample Id. / Nº de muestra / Proben-Id. 1000461411 | | | | | | | | | | | | | | | | | | | | | |
| Sum / Suma / Summe 34 | | 2,601 lb / 1,180 kg | | 1000461412 | | | | | | | | | | | | | | | | | | | | | |
| Heat / Calada / Schmelze 514212 | | Country of Heat / País de calada / Erzeugnisland USA | | Chemical composition / Composición Química / Chemische Zusammensetzung <table border="1"> <thead> <tr> <th>% C</th> <th>% Si</th> <th>% Mn</th> <th>% P</th> <th>% S</th> <th>% Cr</th> <th>% Mo</th> <th>% Ni</th> <th>% N</th> <th>% Cu</th> </tr> </thead> <tbody> <tr> <td>0.027</td> <td>0.38</td> <td>1.28</td> <td>0.025</td> <td>0.0010</td> <td>18.05</td> <td>0.21</td> <td>8.03</td> <td>0.057</td> <td>0.27</td> </tr> </tbody> </table> | | % C | % Si | % Mn | % P | % S | % Cr | % Mo | % Ni | % N | % Cu | 0.027 | 0.38 | 1.28 | 0.025 | 0.0010 | 18.05 | 0.21 | 8.03 | 0.057 | 0.27 |
| % C | % Si | % Mn | % P | % S | % Cr | % Mo | % Ni | % N | % Cu | | | | | | | | | | | | | | | | |
| 0.027 | 0.38 | 1.28 | 0.025 | 0.0010 | 18.05 | 0.21 | 8.03 | 0.057 | 0.27 | | | | | | | | | | | | | | | | |
| Sample Position / Localización de la muestra / Probenlage TRANSVERSE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inspection lot / Lote de inspección / Prüflot 1000461411 | | YS0.2% PSI / MPa 43,510 / 300 | | TS PSI / MPa 97,316 / 671 | | | | | | | | | | | | | | | | | | | | | |
| 1000461412 | | 42,784 / 295 | | 97,026 / 669 | | | | | | | | | | | | | | | | | | | | | |
| | | 57.7 | | 84 | | | | | | | | | | | | | | | | | | | | | |
| | | 58.1 | | 84 | | | | | | | | | | | | | | | | | | | | | |
| Resistant to intergranular corrosion / Resistente contra corrosión intergranular / Beständig geg. interkorn. Korrosion: ASTM A 262 PRACTICE E - Sample Acceptable Dimensions-surface / Dimensiones-superficie / Maße-Oberfläche: Test of identity (spectrometry analysis) / Control de identidad (análisis espectroscópico) / Verwechslungsprüfung (Spektralanalyse): OK OK | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heat Treatment: Solution annealed 1920 °F Min. Air or water cooled Bending test O.K. No welding or weld repairs were performed on this material No intentional additions of Mercury compounds were made or used Free of radioactive contamination EU RoHS Directive 2011/65/EU Compliant Product manufactured in the USA Country of Heat as per ISO 3166-1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Originator of the document / Originador del documento / Aussteller der Bescheinigung Outokumpu Stainless USA, LLC An ISO 9001: 2008 certified company EU PED 97/23/EC, Annex I, 4.3 certified | | The information provided is a true copy of data on file / Los valores e información corresponden a los datos archivados / Die gemessenen Werte entsprechen den gespeicherten Daten  Andrew J. Lucetti Phone: +1 251 878 3402 | | Date of issue and validation / Fecha de emisión y validación / Datum Ausstellung / Bestätigung 02/27/2017 This document shall not be altered or reprinted, except in full / This document shall not be altered or reprinted, except in full / This document shall not be altered or reprinted, except in full / This document shall not be altered or reprinted, except in full | | | | | | | | | | | | | | | | | | | | | |
| Certificate is generated automatically / Certificado es generado automáticamente / Das Zeugnis wurde elektronisch erstellt Name of expert / Nombre del experto / Name des Sachverständigen | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTICE OF SHIPMENT/
PACKING LIST



Fiat Rolled Products

48191

CERTIFICATE OF TEST

015063

CUST ORD NO & DATE

FEES-1664830420

FINISHING LOCATION

SHIPPER NO

PRODUCT CODE

MAIL ORDER NUMBER

DATE SHIPPED

P206081

109/15/16 329587

VANDERGRIFF, PA 522741

13020102060000

30-096-243

12/13/16

FORMS DISTRIBUTION

99108-2 126

7219.90.0000

1121 VANDERGRIFF

PA

657047

PRIME SEC.

DSO DSO

GRADE AND SPECIFICATIONS

CARRIER - M & A TRANSPORT

"ATI 304" STAINLESS STEEL SHEET C R COILS ANNEALED 2B FIN 3 EDGE (AMS 5513J) (ASTM-A-262-14 PRACTICE E) (ASME-SA-240 ED 2015) (EN 10028-7:2007-1.4301-2B) (ASTM-A-240-16) (UNS S30400)

ITEM PCS DIMENSIONS W/G/L

HEAT # COIL #

TEST #

GROSS TARE NET

THEO TAG #/ CD SKID

001 1 48./-.059/2029.

849874 AAB59755-B

8842285

19345

50

19295

469113

-> C CUST IDENTITY 3042B16GX48XC
1 SKID

ORDER REMARKS: EXW - EXCEPT VAT AND OTHER APPLICABLE LOCAL TAXES WHICH ARE THE RESPONSIBILITY OF THE BUYER

DIST: PLEASE MAIL ACKNOWLEDGMENTS TO DIVERSIFIED ULBRICH 98 NORFINCH DRIVE DOWNSVIEW, ONTARIO

CANADA M3N1X1 ATTN: ANNE DIRKSEN-CAIROLI

TYPE HEAT/TEST (WT %)

--C--- --MN-- --P--- --S--- --SI-- --CR-- --NI-- --MO-- --CU-- --N---

HEAT 849874

.06 .96 .035 .0003 .45 18.24 8.11 .48 .43 .06

TEST LOCATION

BN BN BN BN BN BN BN BN BN BN

ITEM TEST NO

PSI *

TENSILE % ELONG

IN 2" % R/A

HARDNESS

BEND A 262 PR E SIZE

001 8842285

T 48200.

96900.

53. #

83.HRBW

85.HRBW

T PASS

PASS NR

TEST LOCATION

TC

TC

TC

TC

TC

TC

TC

* Y.S. BY 0.2% OFFSET METHOD

1%

ITEM TEST NO

52600.

TC

TC

TC

TC

TC

TC

TEST LOCATION

TC

PAGE 01 - CONTINUED ON PAGE 02

12/13/16 08:21:39

CONSIGNEE: Please Note-This consignment was turned over to carrier in first class condition, being correctly loaded, at which time our responsibility for loss or damage in shipment ceased. For your protection please examine shipment as it arrives. If any shortage or damage is discovered, have a full description made by transportation agent on waybill before signing.

WARNING: Safety Data Sheets for this product are available on our website, www.AtlasSteel.com. A thorough review of the Safety Data Sheet for the grade of material purchased shall be performed prior to working with this product and all safety & health considerations outlined must be implemented.

The above is a true copy of data on file. The material and test results conform to the sales contract and specification(s) as set forth in All Flat Rolled Products' Order Acknowledgement.

Stephen Wolf

Director, Corporate Quality Assurance

NOTICE OF SHIPMENT
PACKING LIST



CERTIFICATE OF TEST

| | | | | | | | | | | | | | |
|--------------------|--|-----------|--|--------------------|--|-----------------|--|--------------|--|-------------------|--|--------------|--|
| CUST ORD NO & DATE | | CUST CODE | | FINISHING LOCATION | | SHIPPER NO | | PRODUCT CODE | | BILL ORDER NUMBER | | DATE SHIPPED | |
| P206081 | | 09/15/16 | | 329587 | | VANDERGRIFF, PA | | 522741 | | 13020102060000 | | 30-096-243 | |
| FORMS DISTRIBUTION | | 1 | | 10 | | 99108-2 | | 26 | | 1121 | | VANDERGRIFF | |
| SOLD TO | | 1 | | 10 | | 99108-2 | | 26 | | 1121 | | VANDERGRIFF | |
| PRIME SEC. | | DSO | | DSO | | DSO | | DSO | | DSO | | DSO | |
| 7219.90.0000 | | 1121 | | VANDERGRIFF | | PA | | 657047 | | | | | |

GRADE
"ATI 304" STAINLESS STEEL SHEET C R COILS ANNEALED 2B FIN 3 EDGE
ELONG AT FRACTURE

NR = DATA NOT REQUIRED
GRADE VERIFICATION WAS CARRIED OUT SPECTROSCOPICALLY
EN 10204:2005 - 3.1 CERTIFICATE DOES NOT INDICATE PED APPROVAL FOR THIS MATERIAL.

THESE COMMODITIES OR TECHNOLOGY, WHEN EXPORTED FROM THE UNITED STATES, ARE IN ACCORDANCE WITH THE USA EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW IS PROHIBITED. U.S. LAW ALSO PROHIBITS DISPOSITION OF THESE COMMODITIES/TECHNICAL DATA TO ANY END-USER OR FOR ANY END-USE RELATED TO THE DESIGN, DEVELOPMENT, PRODUCTION, STOCKPILING, OR USE OF CHEMICAL, BIOLOGICAL, OR NUCLEAR WEAPONS, OR MISSILES, WITHOUT THE PROPER APPROVAL OF THE UNITED STATES GOVERNMENT.

THIS CERTIFIED MATERIAL TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL. FEDERAL LAW PROHIBITS THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE AND MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL LAW. ATI FRP HOLDS SEVERAL QUALITY CERTIFICATIONS THAT INCLUDE ISO-9001, AS9100, NADCAP, AND ISO/IEC 17025. MATERIAL WAS MANUFACTURED IN ACCORDANCE WITH THE ATI FRP QUALITY MANUAL REVISION 24 DATED 10/16/2015.

PAGE 02 - CONTINUED ON PAGE 03

12/13/16 08:21:39

CONSIGNEE: Please Note-This consignment was turned over to carrier in best class condition, being correctly loaded, at which time our responsibility for loss or damage in shipment ceased. For your protection please examine shipment as it arrives. If any shortage or damage is discovered, have a full description made by transportation agent on waybill before signing.

WARNING: Safety Data Sheets for this product are available on our website, www.AIIProducts.com. A thorough review of the Safety Data Sheet for the grade of material purchased shall be performed prior to working with this product and all safety & health considerations outlined must be implemented.

The above is a true copy of data on file. The material and test results conform to the sales contract and specification(s) as set forth in AII Flat Rolled Products' Order Acknowledgment.
Stephen Wolf - Director, Corporate Quality Assurance

CERTIFICATE OF TEST

DATE SUBMITTED:

2/13/16

INVOICE
57047

PRIME SEC.

GRADE CARRIER - M & A TRANSPORT
"ATI 304" STAINLESS STEEL SHEET C R COILS ANNEALED 2B FIN 3 EDGE

ATI FLAT ROLLED PRODUCTS HAS NO CONTROL OVER CUSTOMER PROCESSING OF MATERIAL; INCLUDING, BUT NOT LIMITED TO, BUFFING OR ELECTROPOLISHING MATERIAL WITH A 2B OR OTHER FINISH, AND DOES NOT REPRESENT OR GUARANTY THAT THE MATERIAL IS SUITABLE FOR ANY PARTICULAR PROCESS OR USE OF CUSTOMER.

TESTING WAS PERFORMED AT THE FOLLOWING LOCATIONS:
BN = ATI-FLAT ROLLED PRODUCTS; 100 RIVER ROAD; BRACKENRIDGE, PA 15014
TTC = ATI-FLAT ROLLED PRODUCTS; 1300 PACIFIC AVENUE; NATRONA HEIGHTS, PA 15065

FOR ACCESS TO ONLINE CERTIFICATES OF TEST
REGISTER AT MYATI.ATIMETALS.COM

12/13/16 08:21:39

CONSIGNEE: Please Note—This consignment was turned over to carrier in that class condition, being correctly loaded, at which time our responsibility for loss or damage in shipment ceased. For your protection please examine shipment as it arrives. If any shortage or damage is discovered, have a full description made by an independent agent on arrival before signing.

WARNING

Safety Data Sheets for this product are available on our website, www.ATimeless.com. A thorough review of the Safety Data Sheet for the grade of material purchased shall be performed prior to working with this product and all safety & health considerations outlined must be implemented.

The above is a true copy of data on file. The material and test results conform to the sales contract and specification(s) as set forth in All Flat Rolled Products Order Acknowledgement.

Stephen Wolf 
 Director, Domestic Quality Assurance

Stephen Wolff - *Stephen Wolff*
Director, Corporate Quality Assurance



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Guelph, KY 41045-9615
(502) 347-6000

Certificate: 283280 2
Customer: 007035 510

Your Order: 789405

NAS Order: PN 0077612 11

Date: 4/13/2017 Page: 1
Steel: 306
Finish: 2B
Corrosion: ASTM A262/15 A; 180 Bend-OK

PRODUCT DESCRIPTION:

STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED, UNS 30400
ASTM A240/15B, A480/15, A666/15, ASME SA240/15, SA480/15, SA666/15
CHEM ONLY ON FOLLOWING ASTM: A276/16, A479/16, A484/15, A312/16
CHEM ONLY ON FOLLOWING ASME: SA312/13, SA479/13
AMS 5513J XRRK: MIL-8-5059D AMENDS (X CHROM MEAS)
NACE MR0175/ISO 15156-3:2009 A, MR0103/07/008766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:

Mat'1 is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1, ROHS 1 & 2 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mgt. Sys. in Cont. w/ISO 9001
*Melted & Manufactured in the USA; Mat'1 is DPARS Compliant
*Melted & Manufactured in the USA; Mat'1 is DPARS Compliant

| Product Id | Coil # | Std # | Thickness | Width | Weight | Length | Mark | Pieces | Commodity Code |
|------------|----------|-------|-----------|---------|-------------|--------|------|--------|----------------|
| 043507 B | 043507 B | | .0600 | 48.0000 | 19,070 COIL | | 16 | 1 | 74264052 |

CHEMICAL ANALYSIS

| CHEMICAL ANALYSIS | | | | | | | | | | Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323 | | | | | | | | | |
|---------------------|-----|-------|---------|-------|--------|-------|-------|--------|-------|---|--|-------------------|--|------------------|--|-----------|--|-------------------------------------|--|
| CM(Country of Melt) | | | | | | | | | | ES(Spain) | | US(United States) | | ZA(South Africa) | | JP(Japan) | | Chemical Analysis per ASTM A751/14a | |
| CM | C % | CR % | CU % | NI % | NO % | N % | NI % | P % | S % | | | | | | | | | | |
| 3507 | US | .0428 | 18.0790 | .3505 | 1.6670 | .2805 | .0799 | 8.0535 | .0270 | .0011 | | | | | | | | | |

SI %
.3115

MECHANICAL PROPERTIES

| Product Id# | Coil # | 1/4" UTS | 20C .2% YS | 20C KLONG | % Hard | Red | Tail |
|-------------|----------|----------|------------|-----------|--------|-------|-------|
| 043507 B | 043507 B | F T | 100.48 | 52.90 | 46.75 | 88.50 | 87.00 |

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.
KRIS LARK
4/13/2017

#3412

FESS-14G48 3042B

TRA-1418

INSPECTION CERTIFICATE

YIEH MAU CORP.
YIEH MAU CORP.

INVOICE NO. : F17M810
COMMODITY : PRIMARY COLD ROLLED STAINLESS STEEL SHEETS
SPECIFICATION : AISI 304
CUSTOMER : EMPEROR RESOURCES, INC.

工廠地址: 新竹市竹東鎮安路345號
345, SHUN AN RD., LU CHU HSIANG
YAOHSUNG HSIEN TAIWAN R.O.C.
TEL: (03) 8972845 FAX: (03) 8973066
CERTIFICATE NO: F17M810-1
DATE OF ISSUE: 08/14/2012

| SIZE | NO. of Product | Weight In KCI | Heat No. | ID No. | Physical Properties Tensile Test CL-50 mm | | | | | Chemical Properties (%) | | | | | | | | | |
|-------------------------|----------------|---------------|----------|---------------|---|-------------|------------|-----|-----|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|--|--|
| | | | | | Y.S. PSI | T.S. PSI | EL. (%) | HRB | HV | C ± 100 | Si ± 100 | Mn ± 100 | P ± 1000 | S ± 1000 | Ni ± 100 | Cr ± 100 | N ± 100 | | |
| 120"(3.0MM) X 48" X 90" | 1 | 1071 | YU183647 | 65S16127A-212 | 307 | 678 | 54 | 05 | 171 | 4.2 | 43 | 88 | 34 | 2 | 810 | 1819 | 2.6 | | |
| 105"(2.7MM) X 48" X 90" | 1 | 1014 | LZ513A09 | 60S70400B-211 | 316 | 670 | 51 | 08 | 183 | 2.1 | 39 | 105 | 24 | 3 | 806 | 1832 | 5.3 | | |
| 076"(1.9MM) X 48" X 90" | 1 | 1050 | LZ142025 | 65S79192B-22 | 319 | 670 | 53 | 08 | 175 | 2.2 | 54 | 91 | 36 | 4 | 603 | 1626 | 0.3 | | |
| 089"(1.9MM) X 48" X 90" | 1 | 1063 | YU276955 | 65S15256B-1 | 206 | 653 | 53 | 03 | 164 | 2.3 | 37 | 101 | 33 | 1 | 605 | 1812 | 3.4 | | |
| 018"(1.2MM) X 48" X 90" | 1 | 1013 | LZ513C03 | 60S79416A-21 | 302 | 684 | 49 | 08 | 184 | 1.7 | 45 | 105 | 23 | 4 | 605 | 1810 | 5.4 | | |

PS 4818 YU183647
PS 48126 LZ513A09
PS 48146 LZ142025
PS 48166 YU276955
PS 48186 LZ513C03

2251
NOMENCLATURE
WE HEREBY CERTIFY THAT THE MATERIAL DISCLOSED HEREIN HAS
BEEN MADE IN ACCORDANCE WITH THE RULES OF THE MILL CERTIFICATE

ASTM A666-15/ASME SA666-15 ANNEALED
COUNTRY OF MELT AND MANUFACTURE: TAIWAN
Material is free marked on factory non-printing side

SEND TEST-BOOK FOR ALL HEATING
1. ASME SA210/ASME SA210-1/ASTM A210/SA210-13 TYPE 304
2. INTERPOLAR CORROSION IN ACCORDANCE WITH ASTM A702-E
3. Tensile Test: ASTM E8/E8M (ASTM E8, 05), Charpy Test: ASTM E23
4. Tensile Test: ASTM E8/E8M
5. Test Method: C.S. PLASTICITY E1019, 03
6. Other Elements: ASTM E1009, 00
7. MERCURY FREE
8. SOURCE YUSCO
9. CHEMICAL PROPERTIES AND PHYSICAL PROPERTIES COMPLY TO AMS 5513

YIEH MAU CORP.
Manager of Quality Assurance

BVBK 3419

2209

P83538
47476

NAS
North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 244878 3
Customer: 007035 501

Your Order: 786645

NAS Order: PN 0074023 03

Date: 12/08/2016 Page: 1
Steel: 304
Finish: 2B
Corrosion: ASTM A262/15 A,180Bend-OK

PRODUCT DESCRIPTION:

GRAINLESS STEEL COIL, C.R. ANNEALED & PICKLED, UNS 30400
ASTM A240/15, A480/15, A666/15, ASME SA240/15, SA480/15, SA666/15
CHEM ONLY ON FOLLOWING ASTM: A276/15, A479/16, A484/15, A312/16
CHEM ONLY ON FOLLOWING ASME: SA312/13, SA479/13
AMS 55133 XCRK, MIL-S-5053D ALERND (X CROWN KEAS)
NACE MR0175/ISO 15156-3:2009 A, MR0103/07/Q8766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1, ROHS 1 & 2 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001
*Melted & Manufactured in the USA. Mat'l is DPMs Compliant

| Product Id | Coil # | Std # | Thickness | Width | Weight | Length | Mark | Pieces | Commodity Code |
|------------|-----------|-------|-----------|---------|-------------|--------|------|--------|----------------|
| 052087 AA | 052087 AA | | .0300 | 48.0000 | 16,690 COIL | | 9 | 1 | 74355225 |

| CHEMICAL ANALYSIS | | | | | | | | | | |
|---|----|-------|---------|-------|--------|-------|-------|--------|-------|-------|
| Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323 | | | | | | | | | | |
| CM(Country of Mfg) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/14a | | | | | | | | | | |
| HEAT | CM | C % | CR % | CU % | MN % | MO % | N % | NI % | P % | S % |
| 2087 | US | .0411 | 18.1210 | .4495 | 1.7280 | .3085 | .0752 | 8.1155 | .0270 | .0010 |
| SI % | | | | | | | | | | |
| .2290 | | | | | | | | | | |

MECHANICAL PROPERTIES

| Product ID# | Coil # | 1 0 0 F | 4 1 1 T | UTS KSI | 20C KSI | .2% YS KSI | 20C KSI | ELONG %-2" | % Redl | Grain No. | Hard R45T |
|-------------|-----------|------------------|------------------|------------|------------|---------------|------------|---------------|-----------|--------------|--------------|
| 052087 AA | 052087 AA | F | T | 104.99 | 59.76 | 43.71 | 56.50 | 13.00 | 61.00 | | |

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

12/08/2016

Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : **LES ACIERS TRANSBEC (1997) LTEE.**

Adresse / Address : **4054 BOUL. LE CORBUSIER # 201
LAVAL, QC
H7L5R2**

commande Sapa / Sapa order # : **6120924**

bon de commande / Purchase order # : **OU - 47030**

de matrice / Die # : **MS 9903**

Description : **3/8" ROD**

Alliage & trempage / Alloy & temper : **6061 T6**

Longueur / Length : **6097 mm**

de contrôle / Control # : **82386-1**

de coulée / Cast # : **68219**

Dureté Rockwell E /
Rockwell E hardness : **89 HRE**

Min. requis /
Min. required : **88 HRE**

Max. permis /
Max. permitted : **100 HRE**

Composition chimique typique / Typical chemical composition :

| | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti |
|-------|-------------|-------------|-------------|-------------|-------------|-------------|----------|----------|
| 6063 | 0,20 - 0,60 | 0,35 Max | 0,10 Max | 0,10 Max | 0,45 - 0,90 | 0,10 Max | 0,10 Max | 0,10 Max |
| 6005 | 0,60 - 0,90 | 0,35 Max | 0,10 Max | 0,10 Max | 0,40 - 0,60 | 0,10 Max | 0,10 Max | 0,10 Max |
| 6005A | 0,66 - 0,74 | 0,14 - 0,28 | 0,08 - 0,16 | 0,18 - 0,26 | 0,46 - 0,54 | 0,03 Max | 0,05 Max | 0,05 Max |
| 6061 | 0,40 - 0,80 | 0,70 Max | 0,15 - 0,40 | 0,15 Max | 0,80 - 1,20 | 0,04 - 0,35 | 0,25 Max | 0,15 Max |
| 6351 | 0,7 - 1,3 | 0,5 Max | 0,10 Max | 0,40 - 0,80 | 0,40 - 0,80 | --- | 0,20 Max | 0,20 Max |

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme **ASTM B-221-14** excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,
Yours truly,

date : **2017-01-27**



Gilles Pelletier
Technicien de la qualité
Quality technician

FAL 2017

#20497

FAL-12-V

PC.1735
49289**CAN ART**
ALUMINUM EXTRUSION L.P.Material Test ReportManifest: 328412Ticket:
5552835

Our Order: 437823 - 2

Cust P.O.: 792398

Die: ES05740

Part: 5131-8251

Alloy Temper: 6061 T6511Description: 1.000 x 2.000

Print Date: 8/16/17

Chemical Composition

| <u>CastNum</u> | <u>Si</u> | <u>Fe</u> | <u>Cu</u> | <u>Mn</u> | <u>Mg</u> | <u>Cr</u> | <u>Zn</u> | <u>Ti</u> | Maximum | |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|-------------------|
| | | | | | | | | | <u>OtherEach</u> | <u>OtherTotal</u> |
| <u>3B6402</u> | 0.60 | 0.19 | 0.23 | 0.04 | 0.84 | 0.05 | 0.01 | 0.02 | 0.05 | 0.15 |


Mechanical Properties

| Strength ksi | | | | | | |
|---------------|---------------|--------------|-------------|-----------------|------------------|-----------------------|
| <u>Sample</u> | <u>Cast #</u> | <u>Lot #</u> | <u>Test</u> | <u>Ultimate</u> | <u>Yield</u> | <u>Elongation</u> |
| <u>ID</u> | | | <u>Date</u> | <u>Tensile</u> | <u>2% offset</u> | <u>2" gage length</u> |
| 427847 | 3B6402 | A11 | 8/9/17 | 41.86 | 38.62 | 8.9 |

Applicable Specifications: ASTM B221-14 AMS-QQ-A200/8A

Country of Origin: ONTARIO, CANADA

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.


Evan Eng, Quality Assurance Manager

CERTIFICATION DU MATÉRIEL

CLIENT:
SALABERRY-DE-VALLEYFIELD

ACIER OUELLETTE INC DIV.DE
935 BOUL DU HAVRE
SALABERRY-DE-VALLEYFIELD, QUEBEC
QC J6S 5L1

NUMÉRO DE COMMANDE: 14734451 000030
COMMANDE DU CLIENT: AC11905
NUMÉRO DE PIÈCES:
NUMÉRO DE LIVRAISON: 803419876 000030

NUMÉRO D'ARTICLE: 160001373
DESCRIPTION INVENTAIRE: FLT EXT 6061 T6511 1 X 2 X 144

DESCRIPTION ARTICLE FINIS: ALUM Barre PLTE EXT 6061 T6511
1po X 2po X 144po

NUMERO (S) DE COULÉE 3B6402
BRAME / BOBINE / TIN (le cas échéant)
5552835

CERTIFICATION

Un sondage de nos sources matérielles a indiqué que ni le mercure ni des substances radioactives ne sont introduits dans leurs produits ni ne sont utilisés dans aucun de leurs procédés. Alors que nous ne faisons aucun test indépendant pour le mercure ou la radiation, il n'y a rien dans le système de Ryerson qui pourrait entraîner la contamination de l'un ou l'autre type.

Ce document certifie que le matériel décrit ci-dessus a été expédié conformément à votre commande. Le producteur du matériel a certifié à Ryerson qu'il a été produit conformément aux spécifications suivantes:

ASTM B221

12/05/2017



Thomas Endres
Vice-président - Approvisionnement

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6R0.250
 DATE: DEC 14 2017

PO / BATCH NO.: 038598

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 20"
 QUANTITY INSPECTED: 20"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.250
 THICKNESS RECEIVED: 0.250
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|--|--------------|
| SURFACE DAMAGE | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| CORRECT FINISH | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| CORROSION | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| CORRECT GRAIN DIRECTION | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| CORRECT MATERIAL PER M-DRAWING | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | Astm B211 |
| CORRECT THICKNESS | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| PHOTO REQUIRED | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| CORRECT REF # TO LINK CERT | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | Heat # 67081 |
| CORRECT MATERIAL IDENTIFICATION | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| CORRECT M# ON THE MATERIAL | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y <input type="checkbox"/> N <input checked="" type="checkbox"/> | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y <input type="checkbox"/> N <input checked="" type="checkbox"/> | |

| CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) | |
|--------------------------|------------------------|-----------------------------------|--|
| INSPECTED BY: <u>pl</u> | <u>DAS</u> <u>9</u> | SIGNED OFF BY: _____ | |
| DATE: <u>DEC 14 2017</u> | | DATE: _____ | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM ROUND BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/415/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)

OR ASTM B211 OR ASTM B221

PART NUMBER:

M6061T6R/D DD

DIA.

WHERE "D DD" = DIAMETER IN INCHES

EG. 5/8" ROUND BAR = M6061T6R0.625

| | | | |
|---|---|----|----------|
| B | REFORMAT DWG. ADD B211 & B221 SPEC (ZN DB-1). | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. M6061T6R | | | |
| TITLE 6061-T6 ROUND BAR | | | |
| REV. B | | | |
| SHEET 1 OF 1 | | | |
| SCALE NTS | | | |
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2009-09-09
MAD

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6R1-500
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021845

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 20"
 QUANTITY INSPECTED: 20"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.500
 THICKNESS RECEIVED: 1.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|--|---------------------------------------|---------------------------------------|--------------------|
| SURFACE DAMAGE | Y | <input checked="" type="checkbox"/> N | |
| CORRECT FINISH | <input checked="" type="checkbox"/> Y | N | |
| CORROSION | Y | <input checked="" type="checkbox"/> N | |
| CORRECT GRAIN DIRECTION | <input checked="" type="checkbox"/> Y | N | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="checkbox"/> Y | N | <u>Astm B221</u> |
| CORRECT THICKNESS | <input checked="" type="checkbox"/> Y | N | |
| PHOTO REQUIRED | Y | <input checked="" type="checkbox"/> N | |
| CORRECT REF # TO LINK CERT | <input checked="" type="checkbox"/> Y | N | <u>Heat #36375</u> |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="checkbox"/> Y | N | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="checkbox"/> Y | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | <input checked="" type="checkbox"/> N | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | <input checked="" type="checkbox"/> N | |

| CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|--|-------------------------------------|-----------------------------------|
| INSPECTED BY: <u></u> DAS 9 DEC 14 2017 DATE: <u>DEC 14 2017</u> | SIGNED OFF BY: _____ DATE: _____ | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR
SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6R(D,DDD) DIA. *del*

WHERE "D,DDD" = DIAMETER IN INCHES
EG. 5/8" ROUND BAR = M6061T6R0.625

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N 2009-09-09
MD

| | | | |
|--|--|----|----------|
| B | REFORMAT DWG. ADD B211 & B221 SPEC (ZIN D8-1), REF PAR 08-02A | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV | DESCRIPTION | BY | DATE |
| DESIGN | | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. M6061T6R | | | |
| TITLE 6061-T6 ROUND BAR | | | |
| REV. B SHEET 1 OF 1 | | | |
| SCALE NTS | | | |
| DATE 09.07.13 | | | |
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6R0.625
 DATE: DEC 14 2017

PO / BATCH NO: 038598/S021846

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 40"
 QUANTITY INSPECTED: 40"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625
 THICKNESS RECEIVED: 0.625
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|--|------------------------------------|------------------------------------|---------------------|
| SURFACE DAMAGE | Y | <input checked="" type="radio"/> N | |
| CORRECT FINISH | <input checked="" type="radio"/> Y | N | |
| CORROSION | Y | <input checked="" type="radio"/> N | |
| CORRECT GRAIN DIRECTION | <input checked="" type="radio"/> Y | N | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="radio"/> Y | N | <u>A51m B-221</u> |
| CORRECT THICKNESS | <input checked="" type="radio"/> Y | N | |
| PHOTO REQUIRED | Y | <input checked="" type="radio"/> N | |
| CORRECT REF # TO LINK CERT | <input checked="" type="radio"/> Y | N | <u>Heat # 66092</u> |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="radio"/> Y | N | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="radio"/> Y | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | <input checked="" type="radio"/> N | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | <input checked="" type="radio"/> N | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|---|-------------------------------------|-----------------------------------|
| INSPECTED BY: <u>rel</u> DAS DATE: <u>DEC 14 2017</u> | SIGNED OFF BY: _____ DATE: _____ | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6R[D.DDD] DIA. *[Signature]*

WHERE "D.DDD" = DIAMETER IN INCHES
EG. 5/8" ROUND BAR = M6061T6R0.625

RELEASED
R 2009-09-09
[Signature]

| | | | |
|---|---|--------------|----------|
| B | REFORMAT DWG, ADD B211& B221 SPEC (ZN D8-1), REF PAR 08-020A | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | <i>[Signature]</i> | | |
| DRAWN | <i>[Signature]</i> | | |
| CHECKED | <i>[Signature]</i> | | |
| MFG. APPR. | <i>[Signature]</i> | | |
| APPROVED | <i>[Signature]</i> | | |
| DE APPR. | <i>[Signature]</i> | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | REV. B | |
| DRAWING NO. M6061T6R | | SHEET 1 OF 1 | |
| TITLE 6061-T6 ROUND BAR | | SCALE NTS | |
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 R0.750
 DATE: DEC 14 2017

PO / BATCH NO.: 038398/502187

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 40'
 QUANTITY INSPECTED: 40'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750
 THICKNESS RECEIVED: 0.750
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|--|-----------------------|---|-------------|
| SURFACE DAMAGE | Y | N | |
| CORRECT FINISH | Y | N | |
| CORROSION | Y | N | |
| CORRECT GRAIN DIRECTION | Y | N | |
| CORRECT MATERIAL PER M-DRAWING | Y | N | A57m B-221 |
| CORRECT THICKNESS | Y | N | |
| PHOTO REQUIRED | Y | N | |
| CORRECT REF # TO LINK CERT | Y | N | Heat# 68706 |
| CORRECT MATERIAL IDENTIFICATION | Y | N | |
| CORRECT M# ON THE MATERIAL | Y | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | N | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | N | |

| CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) | |
|--------------------------|-------------|-----------------------------------|--|
| INSPECTED BY: <u>ML</u> | <u>DAS</u> | SIGNED OFF BY: _____ | |
| DATE: <u>DEC 14 2017</u> | <u>9-89</u> | DATE: _____ | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR
SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6R[D.DDD]
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES
EG. 5/8" ROUND BAR = M6061T6R0.625

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N 2009-09-09
MP

| | | | |
|---|---|----|----------|
| B | REFORMAT DWG. ADD B211 & B221 SPEC (ZN D8-1). | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. M6061T6R | | | |
| REV. B | | | |
| SHEET 1 OF 1 | | | |
| TITLE 6061-T6 ROUND BAR | | | |
| SCALE NTS | | | |
| DATE 09.07.13 | | | |
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6R0.375
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/502844

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 20"
 QUANTITY INSPECTED: 20"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375
 THICKNESS RECEIVED: 0.375
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|---|-------------------------------|
| SURFACE DAMAGE | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |
| CORRECT FINISH | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | |
| CORROSION | Y <input type="checkbox"/> N <input checked="" type="checkbox"/> | |
| CORRECT GRAIN DIRECTION | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | - ASTM B-221 |
| CORRECT THICKNESS | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | |
| PHOTO REQUIRED | Y <input type="checkbox"/> N <input checked="" type="checkbox"/> | |
| CORRECT REF # TO LINK CERT | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | Heat # C24551/1-4-1 HT# 63219 |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) | |
|-----------------------------|-------------------------|-----------------------------------|--|
| INSPECTED BY: <u>pl PD.</u> | SIGNED OFF BY: <u>*</u> | | |
| DATE: <u>DEC 14 2017</u> | DATE: | | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR

SPECIFICATION:

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B21

PART NUMBER:

M6061T6R1D DDD
DIA.

WHERE "D DDD" = DIAMETER IN INCHES

EG. 5/8" ROUND BAR = M6061T6R0 625

alloy is 6061
~~is ASTM B16 acceptable.~~
QD.

| | | | |
|--|--|--|----------|
| B | REFORMAT DWG. ADD B211& B221 SPEC (ZN D6-1). | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | REV. B SHEET 1 OF 1 SCALE NTS | |
| DRAWING NO. M6061T6R | | TITLE 6061-T6 ROUND BAR | |
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2009-09-09
MAD

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 4606176 B1.000x02.000
 DATE: DEC 15 2017

PO / BATCH NO.: 038598/5021854

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 36"
 QUANTITY INSPECTED: 36"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.00
 THICKNESS RECEIVED: 1.00
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|--|---------------------------------------|---------------------------------------|------------------------------|
| SURFACE DAMAGE | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT FINISH | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORROSION | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT GRAIN DIRECTION | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | - AMS 500-A200/3 |
| CORRECT THICKNESS | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| PHOTO REQUIRED | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT REF # TO LINK CERT | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | Heat # 5207765802 HT# 386402 |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | |

| CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) | |
|----------------------------------|-----------------------------------|-----------------------------------|--|
| INSPECTED BY: <u>[Signature]</u> | SIGNED OFF BY: <u>[Signature]</u> | | |
| DATE: <u>DEC 15 2017</u> | DATE: _____ | | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T65107T6511/T62 ALUMINUM BAR
 SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
 OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
 OR 6061-T6/T6511 OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WWW.WWW | THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
 "WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
 R 2009-08-03
MD

| | | | |
|---|-------------|---|--------------|
| B REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211B221 (2N D7-1) | | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV | DESCRIPTION | BY | DATE |
| DESIGN | DS | DART AEROSPACE LTD | |
| DRAWN | | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | DS | DRAWING NO. | REV B |
| MFG. APPR. | DS | M6061T6B | SHEET 1 OF 1 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | 6061-T6 BAR | NTS |
| DATE | 09.07.13 | COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DRAWING IS UNCLASSIFIED AND IS NOT TO BE RELEASED OR DISCLOSED TO THE PUBLIC OR TO OTHERS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD | |

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304R0.4375
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021848

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12"
 QUANTITY INSPECTED: 12"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.4375
 THICKNESS RECEIVED: 0.4375
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|--|-------------------------------------|-------------------------------------|----------------------|
| SURFACE DAMAGE | Y | <input checked="" type="checkbox"/> | |
| CORRECT FINISH | <input checked="" type="checkbox"/> | N | |
| CORROSION | Y | <input checked="" type="checkbox"/> | |
| CORRECT GRAIN DIRECTION | <input checked="" type="checkbox"/> | N | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="checkbox"/> | N | <u>Astm A276</u> |
| CORRECT THICKNESS | <input checked="" type="checkbox"/> | N | |
| PHOTO REQUIRED | Y | <input checked="" type="checkbox"/> | |
| CORRECT REF # TO LINK CERT | <input checked="" type="checkbox"/> | N | <u>Heat # 102445</u> |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="checkbox"/> | N | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="checkbox"/> | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | <input checked="" type="checkbox"/> | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | <input checked="" type="checkbox"/> | |

| CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|--|----------------------|-----------------------------------|
| INSPECTED BY: <u></u> DAS 9 9-84 | SIGNED OFF BY: _____ | |
| DATE: <u>DEC 14 2017</u> | DATE: _____ | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR
(NOTE: AISI 303 NOT ACCEPTABLE)

B SPECIFICATION:

ASTM A276

PART NUMBER:

M304R0.750
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M304R0.750

RELEASED
09/08/25/14

| | | | |
|--|------------------------------------|-----|----------|
| B | REFORMAT DWG. ADD SPECS (ZN D6-1). | CP | 09.07.15 |
| A | NEW ISSUE | AJS | 08.03.03 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | AJS | | |
| DRAWN | g | | |
| CHECKED | g | | |
| MFG. APPR. | M304R | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 09.07.15 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. M304R | | | |
| REV. B | | | |
| SHEET 1 OF 1 | | | |
| TITLE | | | |
| 304/316 ROUND BAR | | | |
| SCALE | | | |
| NTS | | | |
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303R0.500
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021849

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 36"
 QUANTITY INSPECTED: 36"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500
 THICKNESS RECEIVED: 0.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|---|-------------------|
| SURFACE DAMAGE | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| CORRECT FINISH | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| CORROSION | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| CORRECT GRAIN DIRECTION | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| CORRECT MATERIAL PER M-DRAWING | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | <u>A57m A582</u> |
| CORRECT THICKNESS | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| PHOTO REQUIRED | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| CORRECT REF # TO LINK CERT | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | <u>Heat# 233C</u> |
| CORRECT MATERIAL IDENTIFICATION | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| CORRECT M# ON THE MATERIAL | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> | |

| CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|--------------------------|----------|-----------------------------------|
| INSPECTED BY: <u>msd</u> | DAS 8 | SIGNED OFF BY: _____ |
| DATE: <u>DEC 14 2017</u> | | DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION:

PART NUMBER:

ASTM A582
M303R0.750
DIA.

WHERE "D.000" = DIAMETER IN INCHES
EG. 0.75" ROUND BAR = M303R0.750

RELEASED
2010-02-02
MP

| | | | |
|------------|-----------------------------------|----|----------|
| B | REFORMAT DWG. ADD SPECS (ZN D8-1) | CP | 10.01.05 |
| A | NEW ISSUE | DS | 01.12.20 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 10.01.05 | | |

| | |
|---|---------------|
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| DRAWING NO. | M303R |
| TITLE | 303 ROUND BAR |
| SCALE | 1:1 |
| SHEET 1 OF 1 | NTS |

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303R0.750
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021850

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 36"
 QUANTITY INSPECTED: 36"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750
 THICKNESS RECEIVED: 0.750
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|---|----------------------------|
| SURFACE DAMAGE | Y <input checked="" type="checkbox"/> N | |
| CORRECT FINISH | <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N | |
| CORROSION | Y <input checked="" type="checkbox"/> N | |
| CORRECT GRAIN DIRECTION | <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N | <u>Astm A582</u> |
| CORRECT THICKNESS | <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N | |
| PHOTO REQUIRED | Y <input checked="" type="checkbox"/> N | |
| CORRECT REF # TO LINK CERT | <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N | <u>Heat #490862 409862</u> |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y <input checked="" type="checkbox"/> N | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y <input checked="" type="checkbox"/> N | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| TYPE OF MATERIAL | HRC | HRB | DUR A | DUR D | WEBSTER |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|--|-------------------------------------|-----------------------------------|
| INSPECTED BY: <u></u> DAS 9 DATE: <u>DEC 14 2017</u> | SIGNED OFF BY: _____ DATE: _____ | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION:

PART NUMBER:

ASTM A582
M303R1D.DDQ
DIA.

WHERE "D.DDQ" = DIAMETER IN INCHES
EG. 0.75" ROUND BAR = M303R0.750

RELEASED
2010-02-02
ND

| | | | |
|---|------------------------------------|----|----------|
| B | REFORMAT DWG. ADD SPECS (ZN D8-1). | CP | 10.01.05 |
| A | NEW ISSUE | DS | 01.12.20 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 10.01.05 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. M303R | | | |
| REV. B | | | |
| SHEET 1 OF 1 | | | |
| SCALE | | | |
| TITLE | | | |
| 303 ROUND BAR | | | |
| NTS | | | |
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4140H-R1.250
 DATE: DEC 15 2017

PO / BATCH NO.: 038548/5021851

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 6"
 QUANTITY INSPECTED: 6"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250
 THICKNESS RECEIVED: 1.250
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|--|-----------------------|-----|-------------------|
| SURFACE DAMAGE | Y | (N) | |
| CORRECT FINISH | (Y) | N | |
| CORROSION | Y | (N) | |
| CORRECT GRAIN DIRECTION | (Y) | N | |
| CORRECT MATERIAL PER M-DRAWING | (Y) | N | A193 Gr B7 |
| CORRECT THICKNESS | (Y) | N | |
| PHOTO REQUIRED | Y | (N) | |
| CORRECT REF # TO LINK CERT | (Y) | N | Heat # N#16202066 |
| CORRECT MATERIAL IDENTIFICATION | (Y) | N | |
| CORRECT M# ON THE MATERIAL | (Y) | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | (N) | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | (N) | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|--------------------------|----------|-----------------------------------|
| INSPECTED BY: <u>rel</u> | DAS 9 | SIGNED OFF BY: _____ |
| DATE: <u>DEC 15 2017</u> | | DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



| | | | |
|------------------|---------------|---|------------------------|
| DESIGN # | DRAWN BY # | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED # | APPROVED # | DRAWING NO. M4140H-R | REV. A SHEET 1 OF 1 |
| DATE 05.02.21 | | TITLE 4140 ROUND BAR | SCALE 1:1 |
| A | 05.02.21 | NEW ISSUE | |

PURCHASE MATERIAL: AISI 4140H ROUND BAR

PER AISI 4140 OR ASTM A304-02/-A-434-BC /

-A193-D3-GRADE-B7 // -A29-03/-A322-91 OR

UNS# - G41400

MINIMUM ULTIMATE TENSILE STRENGTH = 100 ksi

MINIMUM YIELD TENSILE STRENGTH = 66 ksi

PART NUMBER: M4140H-R | D.DDD | WHERE D.DDD = DIAMETER IN INCHES
DIA.

EG. $\frac{7}{8}$ " ROUND BAR = M4140H-R0.875

RELEASED
05 03 25

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 B0.625x01.500

PO / BATCH NO.: 038398/5021852

DATE: DEC 15 2017

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 20"
 QUANTITY INSPECTED: 20"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625
 THICKNESS RECEIVED: 0.625
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|--|-------------------------|
| SURFACE DAMAGE | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| CORRECT FINISH | <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> | |
| CORROSION | Y <input type="radio"/> N <input checked="" type="radio"/> | |
| CORRECT GRAIN DIRECTION | <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> | <u>Agm 0221</u> |
| CORRECT THICKNESS | <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> | |
| PHOTO REQUIRED | Y <input type="radio"/> N <input checked="" type="radio"/> | |
| CORRECT REF # TO LINK CERT | <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> | <u>Heat # 201604056</u> |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y <input type="radio"/> N <input checked="" type="radio"/> | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y <input type="radio"/> N <input checked="" type="radio"/> | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| TYPE OF MATERIAL | HRC | HRB | DUR A | DUR D | WEBSTER |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|---|----------|-----------------------------------|
| INSPECTED BY: <u><i>[Signature]</i></u> | DAS 9 | SIGNED OFF BY: _____ |
| DATE: <u>DEC 15 2017</u> | | DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
[Handwritten signature]

[Handwritten signature]

PART NUMBER: M6061T6B T.TTT X WWW.WWW
THICK WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-09-03
[Handwritten signature]

| | | | |
|--|---|-----------------------------|----------|
| B | REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211B221 (Zn D7-1) | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV | DESCRIPTION | BY | DATE |
| DESIGN | DS | DART AEROSPACE LTD | |
| DRAWN | <i>[Handwritten signature]</i> | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | <i>[Handwritten signature]</i> | REV. B | |
| MFG. APPR. | M6061T6B | DRAWING NO. | |
| APPROVED | <i>[Handwritten signature]</i> | SHEET 1 OF 1 | |
| DE APPR. | 6061-T6 BAR | TITLE | |
| DATE | 09.07.13 | SCALE | |
| | | NTS | |
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 4606146B1-000X04.000
 DATE: DEC 15 2017

PO / BATCH NO.: 038598/5021853

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12"
 QUANTITY INSPECTED: 12"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
 THICKNESS RECEIVED: 1.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|--|--------------------|
| SURFACE DAMAGE | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| CORRECT FINISH | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| CORROSION | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| CORRECT GRAIN DIRECTION | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| CORRECT MATERIAL PER M-DRAWING | Y <input checked="" type="radio"/> N <input type="radio"/> | <u>Astm B221</u> |
| CORRECT THICKNESS | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| PHOTO REQUIRED | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| CORRECT REF # TO LINK CERT | Y <input checked="" type="radio"/> N <input type="radio"/> | <u>Heat# 68708</u> |
| CORRECT MATERIAL IDENTIFICATION | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| CORRECT M# ON THE MATERIAL | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y <input type="radio"/> N <input checked="" type="radio"/> | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y <input type="radio"/> N <input checked="" type="radio"/> | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|---|-------------------------------------|-----------------------------------|
| INSPECTED BY: <u></u> DATE: <u>DEC 15 2017</u> | SIGNED OFF BY: _____ DATE: _____ | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION:

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/415/4116)
OR QQ-A-2008 OR AMS-QQ-A-2008 (OR AMS 4160)
OR ASTM B211 OR ASTM B221 *or*

PART NUMBER:

M6061T6B | T.TTT | X | WW.WWW |
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

| | | | |
|---|--|--|----------|
| B | REMOVE QQ-A-250/1 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (END OF 1) | CP | 09.07.13 |
| A | NEW ISSUE | DS | 01.06.08 |
| REV | DESCRIPTION | BY | DATE |
| DESIGN | DS | | |
| DRAWN | <i>AS</i> | | |
| CHECKED | <i>AS</i> | | |
| MFG. APPR. | <i>AS</i> | | |
| APPROVED | <i>AS</i> | | |
| DE APPR. | <i>AS</i> | | |
| DATE | 09.07.13 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | REV. B SHEET 1 OF 1 SCALE NTS | |
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RELEASED
2009-05-03
MP

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304S16GA

PO / BATCH NO.: 038598/5021855

DATE: DEC 15 2017

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 192^{1/2}
 QUANTITY INSPECTED: 192^{1/2}
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.63
 THICKNESS RECEIVED: 0.63
 SHEET SIZE ORDERED: 4x8
 SHEET SIZE RECEIVED: 4x8

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|--|--------------------|
| SURFACE DAMAGE | Y <input checked="" type="radio"/> N <input type="radio"/> | |
| CORRECT FINISH | <input checked="" type="radio"/> Y <input type="radio"/> N | |
| CORROSION | Y <input type="radio"/> N <input checked="" type="radio"/> | |
| CORRECT GRAIN DIRECTION | <input checked="" type="radio"/> Y <input type="radio"/> N | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="radio"/> Y <input type="radio"/> N | <u>Astm A240</u> |
| CORRECT THICKNESS | <input checked="" type="radio"/> Y <input type="radio"/> N | |
| PHOTO REQUIRED | Y <input type="radio"/> N <input checked="" type="radio"/> | |
| CORRECT REF # TO LINK CERT | <input checked="" type="radio"/> Y <input type="radio"/> N | <u>Heat # 3505</u> |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="radio"/> Y <input type="radio"/> N | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="radio"/> Y <input type="radio"/> N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y <input type="radio"/> N <input checked="" type="radio"/> | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y <input type="radio"/> N <input checked="" type="radio"/> | |

| CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| | HRC | HRB | DUR A | DUR D | WEBSTER |
| TYPE OF MATERIAL | | | | | |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) | |
|----------------------------------|----------|-----------------------------------|--|
| INSPECTED BY: <u>DEC 15 2017</u> | <u>A</u> | SIGNED OFF BY: _____ | |
| DATE: _____ | DAS 9 | DATE: _____ | |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: ANSI 304/316 SS SHEET
ANNEALED

SPECIFICATION:

MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240

FINISH:

FINISH IDENTIFIER
UNPOLISHED No. 1
UNPOLISHED No. 2D
UNPOLISHED No. 2B
POLISHED No. 3
POLISHED No. 4
BUFFED No. 6
BUFFED No. 7
BUFFED No. 8

DART M-NUMBER IDENTIFIER
1P
2D
NONE
3P
4P
6P
7P
8P

PART NUMBER:

M304S TT GA #P
GA

WHERE "TT" = GAUGE THICKNESS
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

| GAUGE | NOM. THICK. (IN) | THICKNESS RANGE (IN) |
|-------|---------------------|-------------------------|
| 26 | 0.01875 | 0.0178 - 0.019 |
| 25 | 0.021875 | 0.0199 - 0.023 |
| 24 | 0.025 | 0.024 - 0.026 |
| 23 | 0.028125 | 0.027 - 0.029 |
| 22 | 0.03125 | 0.030 - 0.032 |
| 21 | 0.034375 | 0.033 - 0.035 |
| 20 | 0.0375 | 0.036 - 0.040 |
| 19 | 0.04375 | 0.041 - 0.046 |
| 18 | 0.050 | 0.047 - 0.052 |
| 17 | 0.05625 | 0.053 - 0.058 |
| 16 | 0.0625 | 0.059 - 0.065 |
| 15 | 0.0703125 | 0.066 - 0.072 |
| 14 | 0.078125 | 0.073 - 0.083 |
| 13 | 0.08375 | 0.084 - 0.098 |
| 12 | 0.109375 | 0.099 - 0.114 |
| 11 | 0.125 | 0.115 - 0.130 |
| 10 | 0.140625 | 0.131 - 0.145 |
| 9 | 0.15625 | 0.146 - 0.160 |
| 8 | 0.171875 | 0.161 - 0.176 |
| 7 | 0.1875 | 0.182 - 0.194 |
| 6 | 0.2031 | 0.194 - 0.212 |
| 5 | 0.2188 | 0.201 - 0.228 |
| 4 | 0.2344 | 0.225 - 0.243 |
| 3 | 0.2500 | 0.238 - 0.262 |
| 2 | 0.2656 | 0.254 - 0.278 |
| 1 | 0.2813 | 0.269 - 0.293 |
| 0 | 0.3125 | 0.301 - 0.325 |

RELEASED

2015 FEB 04

ECN 15-122

| | | | |
|--|--|-----|----------|
| D | ADDED GAUGES 0-7. | AJS | 15.01.06 |
| C | DEFINED FINISH OPTION (ZN CB) AND EXAMPLE OF MATERIAL FIN WITH FINISH OTHER THAN 2B (ZN 85). | MB | 12.09.20 |
| B | REFORMAT DWG, ADD ASTM ASME SPECS (ZN D8-1), ADD GAUGE REF (CB-1), REF PAR 08-020A | CP | 09.06.01 |
| A | NEW ISSUE | DS | 01.09.24 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | DS | | |
| DRAWN | AJS | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 15.01.06 | | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| DRAWING NO. M304S | | | |
| REV. D | | | |
| SHEET 1 OF 1 | | | |
| TITLE 304/316 SS SHEET | | | |
| SCALE NTS | | | |
| COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DRAWING IS UNCLASSIFIED AND IS RELEASED ON THE EXPIRATION OF THE PATENT RIGHTS IN THE DESIGN OR IN THE METHOD OF MANUFACTURE NOT TO BE USED FOR REPRODUCTION WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD | | | |

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304S 226-A
DATE: DEC 15 2017

PO / BATCH NO: 038598/5021857

MATERIAL CERT REC'D: Y105
QUANTITY RECEIVED: 32 M²
QUANTITY INSPECTED: 32 M²
QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.32
THICKNESS RECEIVED: 0.32
SHEET SIZE ORDERED: 4x8
SHEET SIZE RECEIVED: 4x8

| DESCRIPTION | NCR (Check Y/N) | COMMENTS |
|--|-----------------------|--------------------|
| SURFACE DAMAGE | Y (N) | |
| CORRECT FINISH | Y (N) | |
| CORROSION | Y (N) | |
| CORRECT GRAIN DIRECTION | Y (N) | |
| CORRECT MATERIAL PER M-DRAWING | Y (N) | <u>Astm A240</u> |
| CORRECT THICKNESS | Y (N) | |
| PHOTO REQUIRED | Y (N) | |
| CORRECT REF # TO LINK CERT | Y (N) | <u>Heat # 2087</u> |
| CORRECT MATERIAL IDENTIFICATION | Y (N) | |
| CORRECT M# ON THE MATERIAL | Y (N) | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y (N) | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y (N) | |

| CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| TYPE OF MATERIAL | HRC | HRB | DUR A | DUR D | WEBSTER |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|--------------------------|----------|-----------------------------------|
| INSPECTED BY: <u>ml</u> | DAS 9 | SIGNED OFF BY: _____ |
| DATE: <u>DEC 15 2017</u> | | DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED

SPECIFICATION:

MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240

FINISH:

FINISH IDENTIFIER
UNPOLISHED No. 1
UNPOLISHED No. 2D
UNPOLISHED No. 2B
POLISHED No. 3
POLISHED No. 4
BUFFED No. 6
BUFFED No. 7
BUFFED No. 8

PART NUMBER:

M304S TT GA #P
GA

WHERE "TT" = GAUGE THICKNESS
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

| GAUGE | NOM. THICK. (IN) | THICKNESS RANGE (IN) |
|-------|---------------------|-------------------------|
| 26 | 0.01875 | 0.0178 - 0.019 |
| 25 | 0.021875 | 0.0189 - 0.023 |
| 24 | 0.025 | 0.024 - 0.026 |
| 23 | 0.028125 | 0.027 - 0.029 |
| 22 | 0.03125 | 0.030 - 0.032 |
| 21 | 0.034375 | 0.033 - 0.035 |
| 20 | 0.0375 | 0.036 - 0.040 |
| 19 | 0.040625 | 0.041 - 0.046 |
| 18 | 0.04375 | 0.047 - 0.052 |
| 17 | 0.046875 | 0.053 - 0.058 |
| 16 | 0.05 | 0.059 - 0.065 |
| 15 | 0.053125 | 0.066 - 0.072 |
| 14 | 0.05625 | 0.073 - 0.083 |
| 13 | 0.059375 | 0.084 - 0.098 |
| 12 | 0.0625 | 0.099 - 0.114 |
| 11 | 0.065625 | 0.115 - 0.130 |
| 10 | 0.06875 | 0.131 - 0.145 |
| 9 | 0.071875 | 0.146 - 0.160 |
| 8 | 0.075 | 0.161 - 0.176 |
| 7 | 0.078125 | 0.182 - 0.194 |
| 6 | 0.08125 | 0.194 - 0.212 |
| 5 | 0.084375 | 0.201 - 0.228 |
| 4 | 0.0875 | 0.225 - 0.243 |
| 3 | 0.090625 | 0.238 - 0.262 |
| 2 | 0.09375 | 0.254 - 0.276 |
| 1 | 0.096875 | 0.269 - 0.293 |
| 0 | 0.1 | 0.301 - 0.325 |

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2015 FEB 04

ECN 15-122 97

| | | | | |
|------------|----------|------------------|-----|----------|
| DESIGN | DS | DESCRIPTION | AJS | 15.01.06 |
| CHECKED | AS | DRAWING NO. | MB | 12.09.20 |
| MFG. APPR. | | M304S | CP | 09.06.01 |
| APPROVED | | 304/316 SS SHEET | DS | 01.09.24 |
| DE APPR. | | | BY | DATE |
| DATE | 15.01.06 | | | |

COMPONENT IS OWNED BY DART AEROSPACE LTD.
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304S146A
 DATE: DEC 15 2017

PO / BATCH NO.: 038598/5021856

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 64 PL
 QUANTITY INSPECTED: 64 PL
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.063 0.063
 THICKNESS RECEIVED: 0.063
 SHEET SIZE ORDERED: 4x8
 SHEET SIZE RECEIVED: 4x8

| DESCRIPTION | NCR (Check Y/N) | | COMMENTS |
|--|------------------------------------|------------------------------------|-------------------------|
| SURFACE DAMAGE | Y | <input checked="" type="radio"/> N | |
| CORRECT FINISH | <input checked="" type="radio"/> Y | N | |
| CORROSION | Y | <input checked="" type="radio"/> N | |
| CORRECT GRAIN DIRECTION | <input checked="" type="radio"/> Y | N | |
| CORRECT MATERIAL PER M-DRAWING | <input checked="" type="radio"/> Y | N | <u>Actual A240</u> |
| CORRECT THICKNESS | <input checked="" type="radio"/> Y | N | |
| PHOTO REQUIRED | Y | <input checked="" type="radio"/> N | |
| CORRECT REF # TO LINK CERT | <input checked="" type="radio"/> Y | N | <u>Heat # L22142025</u> |
| CORRECT MATERIAL IDENTIFICATION | <input checked="" type="radio"/> Y | N | |
| CORRECT M# ON THE MATERIAL | <input checked="" type="radio"/> Y | N | |
| DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF | Y | <input checked="" type="radio"/> N | |
| DOES THIS REQUIRE AN EXTRUSION REPORT | Y | <input checked="" type="radio"/> N | |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW | | | | | |
|--|-----|-----|-------|-------|---------|
| TYPE OF MATERIAL | HRC | HRB | DUR A | DUR D | WEBSTER |
| SIZE OF TEST SAMPLE | | | | | |
| HARDNESS / DUROMETER READING | | | | | |

testers located in the Quality Office

| QC 18 INSPECTION | | ENGINEERING SIGNOFF (if required) |
|----------------------------------|------------|-----------------------------------|
| INSPECTED BY: <u>[Signature]</u> | <u>DAS</u> | SIGNED OFF BY: _____ |
| DATE: <u>DEC 15 2017</u> | | DATE: _____ |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED

SPECIFICATION:
MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240

FINISH:

FINISH IDENTIFIER
UNPOLISHED No. 1
UNPOLISHED No. 2D
UNPOLISHED No. 2B
POLISHED No. 3
POLISHED No. 4
BUFFED No. 6
BUFFED No. 7
BUFFED No. 8

PART NUMBER:

M304S TT GA #P
GA

WHERE "TT" = GAUGE THICKNESS
WHERE "#P" = FINISH IDENTIFIER

GAUGE THICKNESS REFERENCE:

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

| GAUGE | NOM. THICK. (IN) | THICKNESS RANGE (IN) |
|-------|---------------------|-------------------------|
| 26 | 0.01875 | 0.0178 - 0.019 |
| 25 | 0.021675 | 0.0199 - 0.023 |
| 24 | 0.025 | 0.024 - 0.026 |
| 23 | 0.028125 | 0.027 - 0.029 |
| 22 | 0.03125 | 0.030 - 0.032 |
| 21 | 0.034375 | 0.033 - 0.035 |
| 20 | 0.0375 | 0.036 - 0.040 |
| 19 | 0.04375 | 0.041 - 0.046 |
| 18 | 0.050 | 0.047 - 0.052 |
| 17 | 0.05625 | 0.053 - 0.058 |
| 16 | 0.0625 | 0.059 - 0.065 |
| 15 | 0.0703125 | 0.066 - 0.072 |
| 14 | 0.078125 | 0.073 - 0.083 |
| 13 | 0.09375 | 0.084 - 0.098 |
| 12 | 0.109375 | 0.099 - 0.114 |
| 11 | 0.125 | 0.115 - 0.130 |
| 10 | 0.140625 | 0.131 - 0.145 |
| 9 | 0.15625 | 0.146 - 0.160 |
| 8 | 0.171875 | 0.161 - 0.176 |
| 7 | 0.1875 | 0.182 - 0.194 |
| 6 | 0.2031 | 0.194 - 0.212 |
| 5 | 0.2188 | 0.201 - 0.228 |
| 4 | 0.2344 | 0.225 - 0.243 |
| 3 | 0.2500 | 0.238 - 0.262 |
| 2 | 0.2656 | 0.254 - 0.278 |
| 1 | 0.2813 | 0.269 - 0.293 |
| 0 | 0.3125 | 0.301 - 0.325 |



| REV. | DESCRIPTION | DATE |
|------------|---|----------|
| D | ADDED GAUGES 0.7 | 15.01.06 |
| C | DEFINED FINISH OPTION (ZN CB) AND EXAMPLE OF MATERIAL PIN WITH FINISH OTHER THAN 2B (ZN B5) | 12.09.20 |
| B | REFORMAT DWG. ADD ASTM/ASME SPECS (ZN D8-1), ADD GAUGE REF (CB-1), REF PAR 08-020A | 09.06.01 |
| A | NEW ISSUE | 01.09.24 |
| DESIGN | DS | BY |
| DRAWN | AS | DATE |
| CHECKED | AS | |
| MFG. APPR. | M304S | |
| APPROVED | | |
| DE APPR. | | |
| DATE | 15.01.06 | |

RELEASED
2015 FEB 04
ECN 15-122 47

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
REV. D
SHEET 1 OF 1
SCALE
NTS



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO038598**

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

PO No: PO038598
PO Date: 12/7/17
Due Date: 12/13/17
Purchase Order Revision:
Revision Date:
Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments: QUOTE NO. SOU00756580,SOU0076051

Items

| Line Item | Part | Description | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|-----------|---------------|--|--------|----------|----------------|-------------------|---------|------------------|----------------|
| 1 | M6061T6R0.250 | 6061-T6 Round Bar 0.250" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | Firmed | 12/13/17 | 20 ft | 0 ft | 20 ft | \$0.1565/ft | \$3.13 |
| 2 | M6061T6R0.375 | 6061-T6 Round Bar .375" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | Firmed | 12/13/17 | 20 ft | 0 ft | 20 ft | \$0.3775/ft | \$7.55 |
| 3 | M6061T6R1.500 | 6061-T6 Round Bar 1.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | Firmed | 12/13/17 | 20 ft | 0 ft | 20 ft | \$5.521/ft | \$110.42 |

| Items | | | | | | | | | |
|-----------|---------------|--|--------|----------|----------------|-------------------|---------|------------------|----------------|
| Line Item | Part | Description | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
| 4 | M6061T6R0.625 | 6061-T6 Round Bar .625" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | Firmed | 12/13/17 | 40 ft | 0 ft | 40 ft | \$0.99625/ft | \$39.85 |
| 5 | M6061T6R0.750 | 6061-T6 Round Bar .750" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | Firmed | 12/13/17 | 40 ft | 0 ft | 40 ft | \$1.3385/ft | \$53.54 |
| 6 | M6061T6R0.563 | 6061-T6 Round Bar .563" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | Firmed | 12/14/17 | 120 ft | 0 ft | 120 ft | \$1.013666/ft | \$121.64 |
| 7 | M304R0.4375 | 304 Round Bar 0.4375" : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft | Firmed | 12/13/17 | 12 ft | 0 ft | 12 ft | \$1.5325/ft | \$18.39 |
| 8 | M6061T6R1.750 | 6061-T6 Round Bar 1.750" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft | Firmed | 12/13/17 | 20 ft | 0 ft | 20 ft | \$7.2305/ft | \$144.61 |
| 9 | M303R0.500 | 303 Round Bar 0.500" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft | Firmed | 12/13/17 | 36 ft | 0 ft | 36 ft | \$1.973888/ft | \$71.06 |
| 10 | M303R0.750 | 303 Round Bar 0.750" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft | Firmed | 12/13/17 | 36 ft | 0 ft | 36 ft | \$4.7455/ft | \$170.84 |
| 11 | M303R1.000 | 303 Round Bar 1.00" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft | Firmed | 12/13/17 | 12 ft | 0 ft | 12 ft | \$7.901666/ft | \$94.82 |

Plex 12/13/17 11:57 AM dart.lavoie.chanta

| Items | | | | | | | | | |
|-----------|----------------------|--|--------|----------|----------------|-------------------|---------|------------------|----------------|
| Line Item | Part | Description | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
| 12 | M4140H-R1.250 | 4140 Round Bar 1.250 : AISI 4140H ROUND BAR PER AISI 4140 OR ASTM A304-02/-A-434-BC/-A193-03- GRADE B7/-A29-03/-A322-91 OR UNS#-G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI receive ft | Firmed | 12/13/17 | 6 ft | 0 ft | 6 ft | \$6.921666/ft | \$41.53 |
| 13 | M6061T6B0.625X01.500 | 6061-T6 Bar .625 X 1.50 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | Firmed | 12/13/17 | 20 ft | 0 ft | 20 ft | \$3.2645/ft | \$65.29 |
| 14 | M6061T6B1.000X04.000 | 6061-T6 Bar 1.00 X 4.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | Firmed | 12/13/17 | 12 ft | 0 ft | 12 ft | \$12.765833/ft | \$153.19 |
| 15 | M6061T6B1.250X04.500 | 6061-T6 Bar 1.25 X 4.50 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | Firmed | 12/13/17 | 12 ft | 0 ft | 12 ft | \$22.91666/ft | \$275.00 |
| 16 | M6061T6B1.000X02.000 | 6061-T6 Bar 1.00 X 2.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | Firmed | 12/13/17 | 40 ft | 0 ft | 40 ft | \$7.46275/ft | \$298.51 |
| 17 | M6061T6B1.500X3.000 | 6061T6 Bar 1.500 X 3.000 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft | Firmed | 12/13/17 | 12 ft | 0 ft | 12 ft | \$14.020833/ft | \$168.25 |
| 18 | M304S16GA | 304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf | Firmed | 12/13/17 | 192 sf | 0 sf | 192 sf | \$6.508625/sf | \$1,249.66 |

Plex 12/13/17 11:57 AM dart.lavoie.chanta

| Items | | | | | | | | | |
|---|--------------|--|--------|----------|----------------|-------------------|---------|------------------|----------------|
| Line Item | Part | Description | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
| 19 | M304S14GA | 304SS sheet .080 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf | Firmed | 12/13/17 | 64 sf | 0 sf | 64 sf | \$8.365/sf | \$535.36 |
| 20 | M304S22GA | 304/316 .032 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf | Firmed | 12/13/17 | 96 sf | 0 sf | 96 sf | \$3.6232291/sf | \$347.83 |
| 21 | M6061T6S.100 | 6061-T6 .100 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf | Firmed | 12/13/17 | 48 sf | 0 sf | 48 sf | \$6.6047916/sf | \$317.03 |
| 22 | M6061T6S.080 | 6061-T6 .080 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf | Firmed | 12/13/17 | 144 sf | 0 sf | 144 sf | \$5.2480555/sf | \$755.72 |
| Grand Total: | | | | | | | | \$5,043.21 | |
| Order Notes | | | | | | | | | |
| Procurement Quality Clauses A005 right of entry A012 chemical and physical test report A016 personnel qualification A017 raw material identification (as applicable) A026 certification of material conformance A041 quality management system A042 dart notification by supplier A043 retention of quality documents A048 counterfeit parts avoidance, detection, mitigation and disposition program A049 supplier awareness | | | | | | | | | |
| Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation. | | | | | | | | | |

Plex 12/13/17 2:03 PM dart.lavoie.chantal